A STUDY TO EVALUATE THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE AND ATTITUDE REGARDING LIFESTYLE MODIFICATION AMONG PATIENTS WITH CHRONIC KIDNEY DISEASE AT SELECTED HOSPITAL COIMBATORE.

Ms.Sherly. K

Reg. No: 301613452

A Dissertation Submitted to

The Tamil Nadu Dr. M. G. R. Medical University,

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In Partial Fulfillment of the Requirement for the

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BRANCH - I

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INTERNAL EXAMINER **EXTERNAL EXAMINER**

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APPROVED BY THE DISSERTATION COMMITTEE

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Certified that this is the bonafide work of **Ms. Sherly.K**, Texcity College of Nursing, Coimbatore-23, submitted as a partial fulfillment of the requirement for the **Degree of Master of Science in Nursing** to The **Tamilnadu Dr.M.G.R. Medical University, Chennai**. Under the **Registration No: 301613452**

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2018

DECLARATION

I hereby declare that the dissertation entitled **A Study to evaluvate The effectiveness of structured teaching programme on knowledge and attitude regarding lifestyle modification among patients with chronic kidney disease at selected hospital Coimbatore.**

Submitted to the Tamilnadu, Dr. M. G. R. Medical University, Chennai, in partial fulfillment of the requirements for the award of the degree of Master of Science in Nursing is a record of original research work done by myself.

This is the study under the supervision and guidance of **MRS.LITTRESHIA BALIN. J, M.SC (N) (MSN).**,ASSOCIATE PROFESSOR ,Texcity College of Nursing, Coimbatore-23 and the dissertation has not found the basis for the award of any degree/ diploma/associated degree/ fellowship or similar title to any candidate of any university.

SIGNATURE OF THE PRINCIPAL

CANDIDATE: MS.Sherly. K.

DEDICATION

THIS DISSERTATION IS

DEDICATED TO

ALMIGHTY GOD,

BELOVED HUSBAND, KIDS,

FAMILY MEMBERS, TEACHERS AND

FRIENDS FOR THEIR SUPPORT AND

ENCOURAGEMENT.

ACKNOWLEDGMENT

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Mata, Pidha, Guru, Daivam. “I am very much indebted to my loving parents for their continuous support.

“Things do not happen, Things are made to happen”. I thank one and all who directly and indirectly helped in the successful completion of this dissertation.

ABSTRACT

Statement of the problem:

A Study Evaluate the effectiveness of structure teaching programme on knowledge and attitude regarding lifestyle modifications among patients with chronic kidney disease in Balaji Hospital, Coimbatore.

Objectives :

- To assess the level of knowledge and attitude regarding lifestyle modifications among patients with chronic kidney disease.
- To administer a video assisted structured teaching programme on lifestyle modifications among patients with chronic kidney disease.
- To assess the effectiveness of video assistedstructured teaching programme on the level of knowledge and verbal responses structured interview schedule for attitude regarding lifestyle modifications among patients with chronic kidney disease.
- To find out the correlation between knowledge and attitude regarding lifestyle modifications among patients with chronic kidney disease.
- To find out the association between knowledge and attitude regarding lifestyle modifications among patients with chronic kidney disease with selected demographic variables.

Hypothesis:

- **H1:** There will be a significant difference between pretest and post-test level of knowledge and attitude scores regarding lifestyle modifications among patients with chronic kidney disease.

- **H2**: There will be a significant correlation between the pre-test level of knowledge and attitude scores regarding lifestyle modifications among patients with chronic kidney disease.

- **H3:** There will be a significant correlation between post-test level of knowledge and attitude scores regarding lifestyle modifications among patients with chronic kidney disease.

- **H4**: There will be a significant association between pretest level of knowledge and attitude scores regarding lifestyle modifications among patients with chronic kidney disease with their selected demographic variables.

Methodology:

One group pretest and posttest experimental research design. 40 samples were selected using non-probability convenient sampling. A structured Knowledge questionnaire was used to assess the knowledge and modified Likert Scale was used to assess the attitude. Descriptive and inferential statistics were used to analyze the data.

Conclusion:

The study findings revealed that the structured teaching programme regarding lifestyle modifications improved the knowledge and thereby modified the favorable attitude of chronic kidney disease patients.The obtained 't' value for comparison of knowledge score at $p<0.05$ was 16.87and the obtained 't' value for comparison of attitude scores at $p<0.05$ level was 18.87. There was a positive correlation found between the knowledge and attitude scores in the pre-and post test. The study also revealed that that there was an association between the pretest level of knowledge scores and the education, but, other variables like age, sex, religion, occupation. Income, marital status, type of family, dietary pattern, duration of disease, personal habits, associated illness were not associated with the pretest level of knowledge scores. Further, there was no association found between pretest level of attitude scores with the selected demographic variables.

Recommendations

- A similar study can be conducted in a large group to generalize the study findings.
- A similar kind of study can be conducted for a large group.
- A quasi-experimental study can be conducted with a control group for the effective comparison.

CHAPTER -I

INTRODUCTION

Health is the extent of continuing physical, emotional, mental, and social ability to cope with "ones" environment. Good health is harder to define than bad health because it must convey a more positive concept than the mere absence of disease, and there is a variable area between health and disease. Health is defined as a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity **(WHO, 1946).**

1.1. BACKGROUND OF THE STUDY

National kidney foundation (2015) stated that chronic kidney disease is also known as a chronic renal disease where the progressive loss in renal functions over a period of months or years. The symptoms of worsening kidney function are non-specific and might include feeling generally unwell and experiencing a reduced appetite. People with diabetes, high blood pressure are having more chance of developing chronic kidney disease and its complications.

The incidence of chronic kidney disease and its consequences are increasing throughout western and developing world. The world foundation for renal care estimated that by the year 2020, over 1 million people will be required to provide care for approximately 1,4million people receiving dialysis, and approximate 1.2 million are with functioning transplants. Chronic kidney disease is a gradual and progressive loss of the ability of the kidneys to function normally.

Chandrasekaran (2014) stated that the prevalence of chronic kidney disease in southern India was 8.6/1000 population. Only about 10% or less receives renal replacement therapy. Hence it is important that most of them are not aware of the proper management of chronic kidney disease, to prevent kidney disease of the entire population is important,

Adeera Levin (2017) explained the importance of lifestyle management in care for patients with impaired kidney function, common risk factors of chronic kidney disease includes cardiovascular disease and diabetes, lifestyle modification directed at smoking, obesity, alcohol consumption, exercise, and diet are important, Long-term restriction of protein intake delays the progression of chronic kidney disease. Thus, a protein-controlled diet is recommended. The benefit of salt reduction is pertaining to control of hypertension.

Linda (2013) stated that kidney insufficiency and early kidney disease are treated based on symptoms with a restricted diet and fluid intake, medication and careful monitoring for the onset of serious problems that initiation of dialysis. In later available may return the patient to a nearly normal state of health.

Robert Thomas (2014) explained that progression of chronic kidney disease is associated with a number of serious complications, including increased incidence of cardiovascular disease, hyperlipidemia, anemia and metabolic bone disease. Chronic kidney disease patient should be assessed for the presence of these complications and receive optimal treatment to reduce their morbidity and mortality

Lewis (2013) described that chronic kidney patient needs to make changes in their diet, including limiting fluids, eating a low-protein diet as recommended, restricting salt, potassium, phosphorous, and other electrolytes. The purpose of this dietary pattern is to maintain a balance of electrolytes, minerals, and fluid in patients.

Ann, et.al, (2012) said that chronic kidney disease of an individual is maintained by diet, exercise and day to day activities. As a result of technological development, the lifestyle, obesity, smoking, poor diet, and lack of exercise for people in the modern country has changed a lot. There is a remarkable change in food habits as well as physical activities. So the kidney disease can be controlled by various measures like adopting a healthy diet, medication, exercises, engaged in relaxation technique like yoga and meditation.

1.2 NEED FOR THE STUDY

Bracken, et.al (2014) stated that the kidney is one of the major vital organs. The proper function of the urinary system is essential for the normal functioning of the body. Diseases of the kidneys are currently the leading cause of the death throughout the country. Chronic kidney disease is a progressive, irreversible, deterioration in the renal function in which the bodies ability to maintain metabolic and fluid-electrolyte balance fails, resulting in azotemia or uremia. In the early stage of renal impairment, symptoms may be minimized through hemodialysis and regulation of diet, control of fluid intake, and use of medication, as renal function worsens these treatments become insufficient.

Prabahar (2015) stated that chronic kidney disease is a worldwide health problem. Diseases of the kidney and urinary tract contribute to the global burden with approximately 850,000 deaths every year and 1.15,10,100 disability-adjusted life years. Chronic kidney disease is the 12^{th} leading causes of death and 17^{th} causes of disability. Patients with chronic kidney disease are at high risk for cardiovascular disease and cerebrovascular disease (WHO 2012)

Suresh C. D (2015) stated that chronic kidney disease is a global threat to health in developing countries. In India, 90% of patients are not able to afford the cost. Over 1 million people worldwide are alive on dialysis or with a functioning graft. The incidence of chronic kidney disease as doubled in the last 15 years.

George (2012) reported that the prevalence of the end-stage renal disease has increased worldwide, with the common causes which are hypertension and diabetes and associated with large increases in cardiovascular risk. Most of the deaths from cardiovascular diseases are caused by the chronic kidney disease. So the early identification and reduction of chronic kidney diseases have become a vital public health priority.

Sanmugam (2014) started that the average global prevalence of treated end-stage kidney disease, dialysis, and transplant patient were 280,215 and 65 patients per million respectively. In India, the average prevalence rate for treating end-stage kidney diseases

and transplant patients were 70.60 and 10 patients were per million, respectively. This number is increasing globally at a rate of 7%every years.

Teng. H.L (2013) conducted a study on lifestyle modifications regarding lifestyle factors, specifically diet and exercise behaviors, which can delay the progression of chronic kidney disease. The study revealed that the effects of a targeted lifestyle modification program are based on the readiness to change health-promoting lifestyle behaviors, renal protection knowledge, and physical indicators of a patient with early chronic kidney disease.

Bren. A. F (2015) started that chronic kidney disease is a progressive disorder associated with severe metabolic disturbances that greatly increases the risk for cardiovascular disease, osteoporosis, muscle wasting, and other disorder that contribute to extremely low physical low functioning in this population. Lifestyle modifications such as exercise and dietary factors reduce co-morbidities associated with chronic kidney disease.

Buke (2016) stated that modification of lifestyle habits like smoking cessation, exercise, moderate alcohol consumption, and weight loss in obese people will slow the progression of chronic kidney disease. Diet is considered 0ne of the treatment of chronic kidney disease. Dietary advice includes information about energy, protein, sodium phosphate, potassium, and fluid. The overall aim is to prevent malnutrition, hyperkalemia, hyperphosphatemia, and obesity and to aid in the treatment of hypertension and alleviate the uremic symptom, a balanced healthy diet to meet individual nutritional requirements.

Therefore the above fact and studies created an insight in the investigator`s mind. By improving the knowledge regarding lifestyle modification on chronic kidney disease, the incidence of complication could be reduced. It may enhance the changes in the health care delivery system. The overall aim of the present study is to assess the effectiveness of video assisted teaching programmed on knowledge and attitude regarding lifestyle modification among patients with chronic kidney disease.

1.3 STATEMENT OF THE PROBLEM

A Study to evaluate the effectiveness of structured teaching programme on knowledge and attitude regarding lifestyle modification among patients with chronic kidney disease at selected hospital Coimbatore.

1.4 OBJECTIVES

- To assess the level of knowledge and attitude regarding lifestyle modifications among patients with chronic kidney disease.
- To administer a video assisted structured teaching programme on lifestyle modifications among patients with chronic kidney disease.
- To assess the effectiveness of video assistedstructured teaching programme on the level of knowledge and verbal responses structured interview schedule for attitude regarding lifestyle modifications among patients with chronic kidney disease.
- To find out the correlation between knowledge and attitude regarding lifestyle modifications among patients with chronic kidney disease.
- To find out the association between knowledge and attitude regarding lifestyle modifications among patients with chronic kidney disease with selected demographic variables.

1.5 HYPOTHESIS:

- **H1:** There will be a significant difference between pretest and post-test level of knowledge and attitude scores regarding lifestyle modifications among patients with chronic kidney disease.
- **H2:** There will be a significant correlation between the pre-test level of knowledge and attitude scores regarding lifestyle modifications among patients with chronic kidney disease.
- **H3:** There will be a significant correlation between the post-test level of knowledge and attitude scores regarding lifestyle modifications among patients with chronic kidney disease.

- **H4:** There will be a significant association between pretest level of knowledge and attitude scores regarding lifestyle modifications among patients with chronic kidney disease with their selected demographic variables.

1.6 OPERATIONAL DEFINITIONS

1.6.1 Effectiveness

In the study, it refers to the extent to which the structured teaching programme on knowledge and attitude regarding lifestyle modifications among patents which chronic kidney disease which is able to produce the desired effect as measured in terms of gain in test knowledge score and attitude score.

1.6.2 Structured teaching programme

It refers to the teaching programme delivered with the help of PPT and a booklet regarding the lifestyle modifications among patients with chronic kidney disease. It includes medication, diet, exercise, and hypertensive management, glycemic control and smoking cessation of alcohol, relaxation technique, and prevention of complication and follows up.

1.63 Knowledge

It refers to the written response to the knowledge questionnaire on the lifestyle modifications among Patients with a chronic disease which is assessed by the scores obtained.

1.6.4 Attitude

It refers to the feeling and belief of the day to day activities of a patient with chronic kidney disease on lifestyle modifications, which is explored by the scores of attitude questionnaire.

1.6.5 Chronic kidney disease

Chronic kidney disease refers to decreased kidney function and or kidney damage persistent for at least 3 months. Kidney dysfunction is indicated by a glomerular filtration rate of less than 60 ml/min/1.73m^2. While kidney damage most frequently is manifested as increased urinary albumin excretion.

1.6.7 Lifestyle modification

The lifestyle modification involves in the area of medication, diet, exercise and hypertensive, glycemic control, and smoking cessation, avoidance of alcohol, relaxation, technique, prevention of complication and follow up,

1.7 ASSUMPTIONS

- Chronic kidney disease patients may not have adequate knowledge and attitude regarding lifestyle modifications,
- Education will enhance the knowledge and attitude of chronic disease patients regarding lifestyle modifications.

1.8 DELIMITATIONS:

- Patients with chronic kidney disease in NG hospital, Coimbatore.
- Who are willing to participate in the study.
- Who are available at the time of data collection

1.9 LIMITATIONS

- The limited sample size places a limitation on the generalization of the study findings.
- The researcher could not use the randomized sampling technique in this study.

- Knowledge and attitude of the chronic kidney disease patient were assessed only through the verbal responses structured interview schedule, which may be selectively to various factors like inhibition of self-expression.
- This study assessed only the chronic kidney disease patient knowledge and attitude, actual practice was not observed.

1.10 PROJECTED OUTCOMES

This study will enable the investigator to improve the knowledge of the chronic kidney disease patients and find out the personnel compelling motivators for change in their attitude.

1.11 CONCEPTUAL FRAMEWORK

The conceptual framework of the study was decided from modified Roy's adaptation model (1979). Roy points out adaption was a dynamic state of equilibrium involving both high and low response brought by person triggered stimuli. It involves an open system in which stimuli enters from the environment and changes the behavior of a person to adopt condition.

Input

Input consists of stimuli which can come from the environment or within a person. In this study demographic variables age, sex, religion, education, occupation, marital status, family type, dietary pattern, duration of illness, personal habits, associated illness and the knowledge and attitude of lifestyle modifications of chronic kidney disease.

Throughput

Throughput makes person processors and effectors. Processors refer control mechanism that a person uses an adaptive system. Structured teaching programme measure served as a control mechanism to adapt according to stimuli. Effectors refer to

an adaptive model. Physiological function, self-concept, role function, and interdependence are involved in adaptation.

Physiologic Function

It involves the body's basic needs for the patient. Here it refers to diet restriction like low sodium, potassium, protein and phosphorous diet, fluid restriction, control of blood pressure and control of blood sugar.

Self Concept

Self-concepts are about belief and feeling of their body image. It involves maintaining kidney function and preventing complication.

Interdependence

Interdependence refers to interact with researcher and professionals to seek information about lifestyle modifications.

Role Function

This involves the behavior of a person which depends on how a person interacts with the researcher and family members in a given situation. Here the patients interact with the researcher and family members.

Output

The output is the outcome of the system. In this study, output refers to changes in knowledge and attitude adapting measure for lifestyle modification. If he or she adapts the system he or she gains adequate knowledge and favorable attitude. If he or she maladapted the system he or she haS inadequate knowledge and an unfavorable attitude. If the patients have a lack of knowledge and attitude after the teaching programme the process is again reassessed and the redirected process is continued.

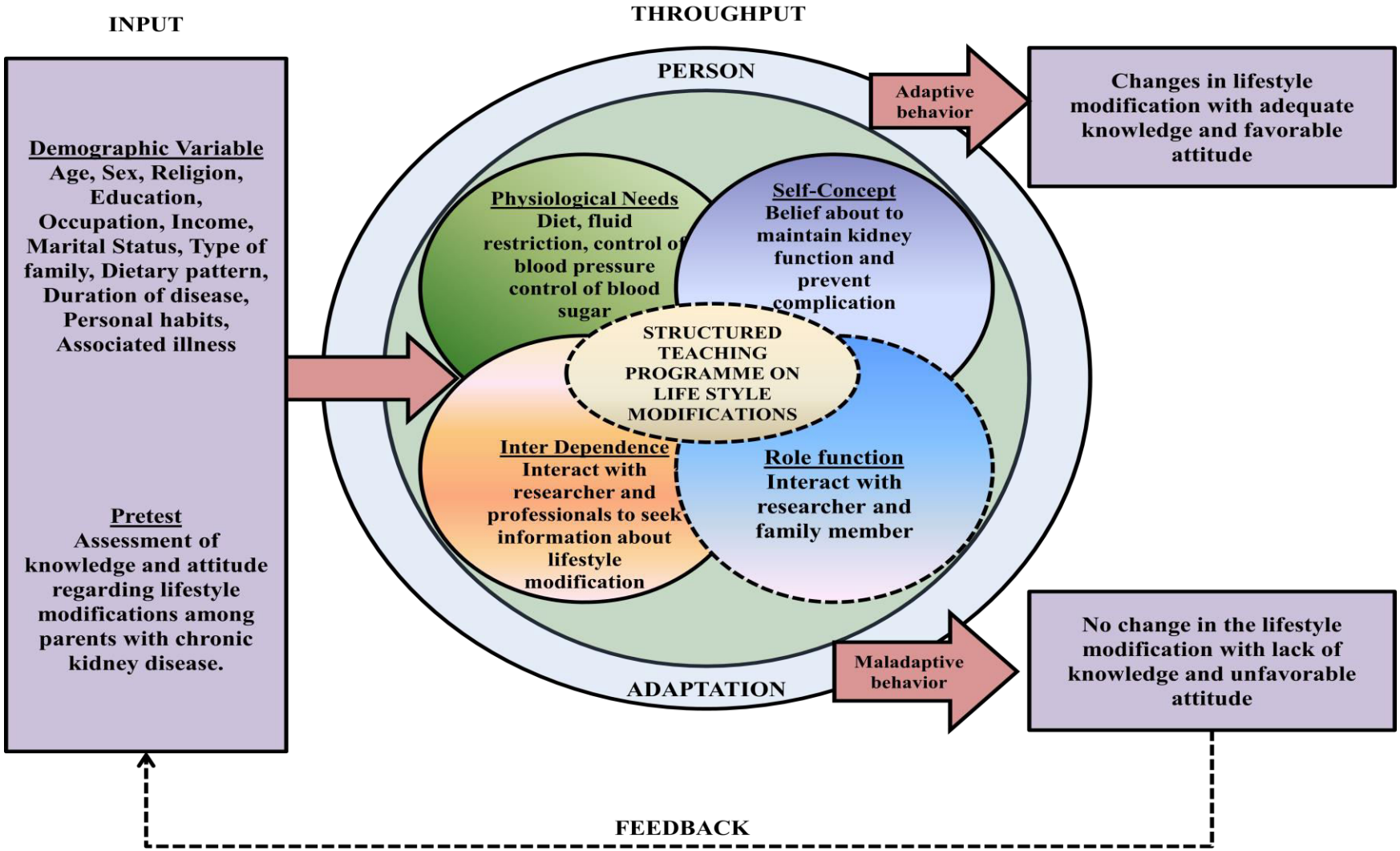


Figure 1.1: Modified Conceptual Frame Work Based on Roy's Adaptation Model (1992)

CHAPTER- II

REVIEW OF LITERATURE

A literature review surveys scholarly articles, book and other sources relevant to a particular issue, area of research or theory, and by doing so, providing a description, summary and critical evaluation of these works, Literature review is designed to provide an overview of the source which has explored which researching a particular topic and demonstrate to readers, how the research fits into larger field of study (Labaree, 2013)

The review of literature is discussed under the following headings

2.1 Section – A: Literature related to the overall view of chronic kidney disease

2.2 Section – B: Literature related to the lifestyle modifications of chronic kidney disease

2.3 Section – C: Literature related to knowledge and attitude regarding lifestyle modifications on

chronic kidney disease

2.1 Section – A: Literature related to the overall view of chronic kidney Disease

Kay.S, et.al, (2010) defined renal failure as a clinical syndrome characterized by a gradual decline in renal function, leading to an increase in serum creatinine level which is progressive irreversible. Human kidneys serve to convert more than 1700 Liters of blood per day into about I liter of highly specialized concentrated fluid called urine. The kidney excretes the waste products of metabolism, precisely. Regulates the body's concentration of water and salt, maintains the appropriate acid. The balance of plasma

and serves as an endocrine organ, secreting such hormones as erythropoietin, rennin, and prostaglandins.

Ilangovan (2012) stated that a chronic kidney disease is a major public health problem. Chronic diseases are a leading cause of morbidity and mortality in India and other low and middle-income countries, 60% of all deaths occur worldwide due to chronic disease. In India, 521 million deaths occur due to chronic kidney disease in the year 2008 and expected to rise to 7.63 million in 2020 (66.70).

Clyne (2011) stated that patients with chronic kidney disease have a markedly increased morbidity and mortality from cardiovascular disease and experience a progressive decrease in physical function. The causes of chronic kidney disease are insufficient blood-pressure control, secondary hyperparathyroidism, increased inflammatory activity and a sedentary lifestyle

Ariel Linden (2016) conducted a study on the prevalence of chronic kidney disease. Chronic kidney disease is found in approximately 20% to 25% in the general population. The chronic kidney disease rate was increased 3 times higher in hospitalization among chronic kidney disease. By 2020, more than 750,000 people in the United States will need dialysis for kidney failure. So there is a need for preventive measures in chronic kidney disease.

Ajay. K. Singh (2012) conducted across 'sectional study among 5588 subjects from 13 academic and private medical centers all over India, about tepidemiology and risk factors of chronic kidney disease. The study revealed that the prevalence of chronic

kidney disease is 79.5% in the chronic kidney disease group had proteinuria and that early intervention may retard the progression of kidney disease.

George Thomas (2009) stated that aging is the most common risk factor for the development of high blood pressure and diabetes as well as chronic kidney disease. Nearly one billion people worldwide have high blood pressure and it is expected to increase to 1.56 billion by 2025.

Niina Sandholm (2015) conducted a study to detect genetic variants that might predispose diabetic women to kidney failure. Their initial study included 3652 Finnish patients with type 1 diabetes. The researchers identified a genetic variant on chromosome 2 that linked with kidney failure in women with type I diabetes but not in men. Additional analysis revealed that also linked with kidney failure in diabetic women in the United Kingdom, the United States, and Italy. So the study concluded that diabetic women with the risk variant had a nearly two-fold increased risk of developing kidney failure compared with diabetic women.

Swarna Soman (2016) conducted a descriptive study to assess the role of depression in quality of life among patients undergoing renal substitutive therapy. A total of 123 patients over 19 who were undergoing renal substitutive therapy were evaluated. A self-structured instrument and Beck depression inventor was used to assess the data on quality of life and depression. The patient's metabolic state was measured by medical and laboratory tests. The result showed that the highest score (65%) in patients with chronic disease belonged to social functioning dimensions and mental health. The study

concluded that patients undergoing renal substitutive therapy were affected by depression.

2.2 Section – B: Literature related to lifestyle modifications of chronic kidney disease

Asuman Ugurlu Yildiz (2012) conducted a study on lifestyle education and counseling on quality of life and renal function in patients with chronic kidney disease. The sample size was 84, quality of life was measured by means of Short Form-36. The education and counseling program focused on behavior style, including exercise and diet issues and also the cessation of smoking and alcohol consumption. The result concluded that patients with chronic kidney disease positively improved their health-related quality of life and some renal functions after the education and counseling.

Suja Abraham (2012) conducted a study to assess the quality of life of patients on hemodialysis. Fifty patients were selected for the study and randomly divided into two groups, control, and test. Counseling was given to the test group of patients. There was an increase in score in all the four domains (physical, psychological, environmental and social) among the test group and compared with the control group. They found that the psychological domain showed a significant increase in score compared with the controlgroup. The study findings demonstrate that patient counseling plays an important role in improving the quality of life by changing theirpsychological thinking and bringing them toward spirituality.

Sima Maghodasian, et.al, (2012) conducted a case-control study on the lifestyle of 155 hemodialysis patients in comparison with 155 outpatients referring in 5 dialysis

centers and clinics in Tabriz, Iran. Demographic data and questionnaire about lifestyle in nutrition, stress, physical activity, and smoking were used to collect the data. The results revealed that physical activity was higher in outpatients whereas smoking was higher in dialysis patients, nutrition and stress were equal in both groups. The study concluded that steps to lifestyle modification were needed for patients with chronic kidney disease.

Nicole Isbel (2013) conducted a study on exercise and lifestyle modification program on patients with moderate chronic kidney disease. Components included 150 minutes per week of moderate intense exercise as well as group behavior and lifestyle modification sessions. Eighty-three patients were randomized. At the beginning of the study, only 4500 of patients could achieve their age-predicted exercise capacity. Those who participated in the program for 12 months were significantly fit with an 11% increase in their maximal aerobic capacity compared with a 1% decrease in patients receiving usual care. The result showed that the standard care reduces chronic kidney disease patients' risk of dying prematurely from heart disease.

Srinivasan Beddhu (2009) conducted a study on physical activity and mortality in chronic kidney disease. The sample size was 15,368. Physical activity obtained by a questionnaire, the inactivity was present in 13.500 of the non-chronic kidney disease and 28.00 of the chronic kidney disease groups. The study concluded that the physical inactivity is associated with increased mortality in chronic kidney disease and nonchronic kidney disease populations. The increased physical activity might have a survival benefit in the chronic kidney disease population.

Milav Bhavsar (2013) conducted a retrospective study on the association of mineral and bone disorder levels with chronic kidney disease. The total sample size was 50. 36 (80%) were to have low calcium levels and 39 (86.67%) were to have high phosphorus levels. The result revealed that low calcium and high phosphorus levels are found in patients with chronic kidney disease. So the study concluded that mineral and bone disorder is more common among chronic kidney disease patient and patients need to be taken restricted phosphorus content.

Husin. H. C (2013) conducted a study on the prevalence and correlates of depression among chronic kidney disease patient in Taiwan, the total sample size was270, structured questionnaire was used for the study that shows the prevalence of depression were 22.6 %. The results are concluded that chronic kidney disease patient with a higher risk of depression.

2.3 Section – C: Literature related to knowledge and attitude regarding life style modification on chronic kidney disease

Kuroki. A (2013) conducted a study on the management of chronic kidney disease and preventing the progression of renal disease. In this study, patients with the chronic renal disease were selected, the quasi-experimental research design was adopted. A structured teaching program was given to the patients. The structured teaching program included the following, treating disease worsening conditions like diabetes mellitus, hypertension, anemia etc, and smoking cessation, sodium and potassium restriction, antihypertensive therapy etc. The study report showed that these therapies were effective in preventing the progression of kidney disease in this selected samples.

Thomas. N (2015) conducted a study to assess the knowledge on self-care management among the patients with diabetes at risk of chronic kidney disease. In this study, 15 patients who are at high risk of progressive kidney disease were interviewed. A descriptive research design was utilized. The most important finding from the interview was that most people had an inadequate understanding of the possible risk of kidney disease.

Erick (2014) conducted a study to assess patients knowledge regarding risk factors, methods which slow progression and complications of chronic kidney disease, on 50 patients. 58% were hypertensive and 16% had a family history of chronic 270, a structured questionnaire was used for the study that shows the prevalence of depression were 22.6 %. The results are concluded that chronic kidney disease patient with a higher risk of depression.

Kuroki. A (2012) conducted a study on the management of chronic kidney disease and preventing the progression of renal disease. In this study patients with the chronic renal disease were selected, the quasi-experimental research design was adopted. A structured teaching program was given to the patients. The structured teaching program included the following, treating disease worsening conditions like diabetes mellitus, hypertension, anemia etc, and smoking cessation, sodium and potassium restriction, antihypertensive therapy etc. The study report showed that these therapies were effective in preventing the progression of kidney disease in this selected samples.

Thomas. N (2014) conducted a study to assess the knowledge on self-care management among the patients with diabetes at risk of chronic kidney disease. In this

study, 15 patients who are at high risk of progressive kidney disease were interviewed. A descriptive research design was utilized. The most important finding from the interview was that most people had an inadequate understanding of the possible risk of kidney disease.

Erick (2012) conducted a study to assess patients knowledge regarding risk factors, methods which slow progression and complications of chronic kidney disease, on 50 patients. 58% were hypertensive and 16% had a family history of chronic kidney disease, hypertension (36%), diabetes (32%) and smoking (10%) were selected less frequently. 90% of the participants thought that chronic kidney disease increased the risk of death but few thought that chronic kidney disease increased the risk of hypertension, heart attack, and stroke. The study concluded that education is important to prevent risk factor and complications.

Harjo Kaur (2017) conducted a study on the feasibility of a structured group education session to improve self -management of blood pressure in people with chronic kidney disease, the sample size was 80, and evidence-based structure group educational intervention was given. The study revealed that the structured group education programme was feasible.

Ford (2009) conducted a quasi-experimental study to find out the effect of diet education knowledge of hemodialysis patient with hyperphosphatemia among 63 dialysis patient in the outpatient dialysis center in the southern state, USA. Structured teaching was given regarding diet management. The results showed that the patients who receive extra education monthly showed positive changes which were beneficial in reducing

hyperphosphatemia. The study concluded that an educational intervention can bring about a desirable change in knowledge among hemodialysis patients regarding diet.

Mehmet (2012) conducted a study to assess the knowledge of medication for chronic kidney disease among chronic kidney disease patients and to evaluate the impact of education on their knowledge of medication. The study population consisted of 90 patients were randomized into 2 groups. Baseline medication knowledge of these patients was assessed by using medication knowledge questionnaire developed for the study. The result showed that medication knowledge of the chronic kidney disease patients was extremely poor regarding the name, indication and dosage regimen of their medication. The study concluded that the need for the continued education for the chronic kidney disease patient for the better understanding of the medications they use.

Mason. J (2015) conducted a study to assess the effectiveness of video assisted educational intervention in chronic kidney disease management. The total sample size was 100. The quasi-experimental research design was applied. A structured educational intervention was given through video. The study result showed that there was a significant improvement in knowledge and attitude among chronic kidney disease patients. The study concluded that video-assisted educational intervention was effective in chronic kidney disease patients.

Apple. L. J (2013) conducted a study to evaluate the effectiveness of the video teaching programme on lifestyle modifications in controlling blood pressure among chronic kidney disease patients. A total of 60 chronic kidney disease patients with hypertension were selected and quasi-experimental research design was utilized. The

education on lifestyle modifications included increased physical activity, reduced salt intake, decreased potassium and reduced fat and cholesterol intake and overall health pattern. The result reported that the video-assisted teaching programme on lifestyle modification was found to be effective in controlling blood pressure for chronic kidney disease patients.

CHAPTER III

RESEARCH METHODOLOGY

3.1 INTRODUCTION

The methodology is the way to solve the problem systemically that includes the step of procedure and strategies of the data (Polit and Beck). It includes research approach, research design, the setting of the study, population, sampling size and sampling technique, criteria for the selection of the sample, description of the tool, content validity, reliability, pilot study, data collection procedure and plan for data.

3.2 RESEARCH APPROACH

The quantitative research approach was selected to assess the effectiveness of structured teaching programme on knowledge and attitude regarding lifestyle modifications among patients with chronic kidney diseas .

3.3 RESEARCH DESIGN

One group pretest, the post-test design was adopted for the present study.

Q_1 X Q_2

Q_1: Pretest assessment

X : Intervention (Structure teaching programme on life style modifications)

Q_2 : Post test assessment

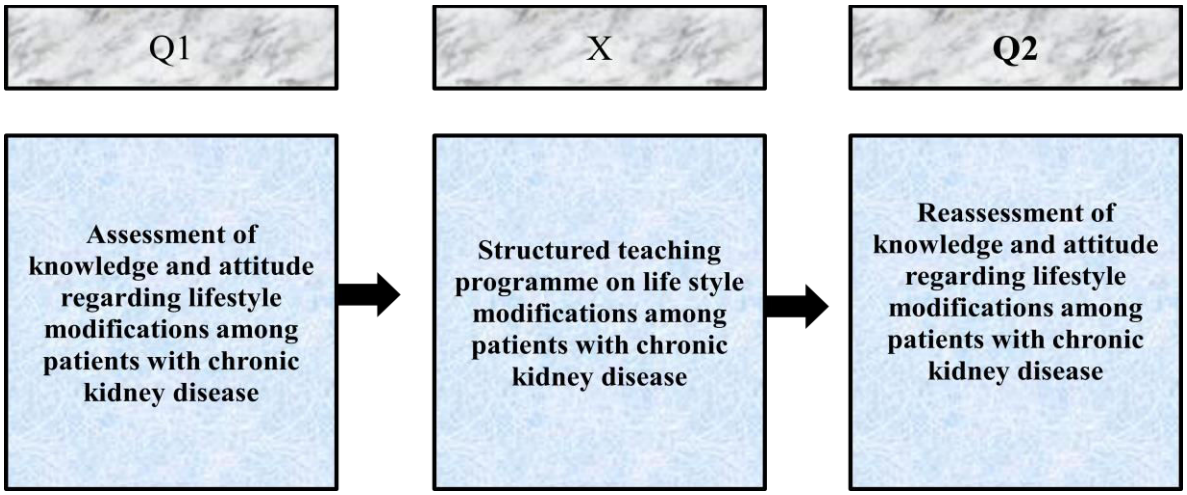


Figure: 3.1: The Schematic Representation of Research Design

3.4 RESEARCH VARIABLES

The Independent variable was video assisted teaching programme regarding lifestyle modifications. The dependent variables were knowledge and attitude regarding lifestyle modifications among patients with chronic kidney disease. Influencing variables were demographic variables.

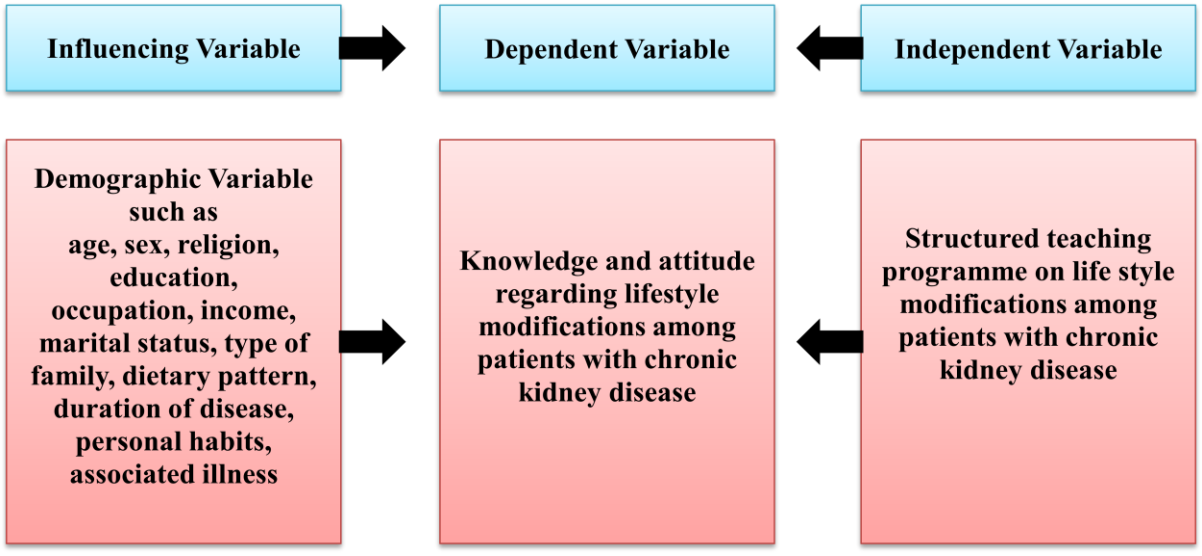


Figure 3.2: The Schematic Representation of Research variables

3.5 THE SETTING OF THE STUDY

The study was conducted among patients with chronic kidney disease in Balaji hospital, Coimbatore, which is a 150 bedded Hospital, consists of 6 bedded dialysis units with the outpatient coverage of 150 patients per day. This is a well-equipped hospital for kidney disorder patients with inpatient and outpatient department.

3.6 POPULATION

The population of the study includes patients with chronic kidney disease who are attending the outpatient department during the period of data collection.

3.7 SAMPLES AND SAMPLE SIZE

The sample size is 40 patients with chronic kidney disease.

3.8 CRITERIA FOR THE SELECTION OF SAMPLING

3.8.1 Inclusion Criteria

- The patient's age more than 20 years
- Patients diagnosed with chronic kidney disease within l-2years
- Both female and male patients with chronic kidney disease
- Patients who know either Tamil or English
- Patients who can read and write

3.8.2 Exclusion Criteria

- Patients who are not willing to participate in the study
- Patients who are critically ill
- Patients with chronic kidney disease for more than 2 years.

3.9 SAMPLING TECHNIQUE

Non -probability convenient sampling technique was used for selecting the samples.

3.10 DESCRIPTION OF THE TOOL

The researcher had developed a structured questionnaire after reviewing of the literature to assess the knowledge and attitude regarding lifestyle modifications among patients with chronic kidney disease. It consists of 3 sections.

Section -A: Demographic Variables

Demographic variables, which include sample number, age, sex, religion, education, occupation, marital status, family income, type of family, dietary pattern, body built, duration of disease, personal habits, associated illness.

Section B: Structured Knowledge Questionnaire

It contains 30 multiple choice questions to assess the level of knowledge regarding the lifestyle modifications in the areas of a brief anatomy of kidney, incidence, etiology, signs and symptoms, diagnostic tests, management and lifestyle changes like healthy kidney diet, exercise, smoking cessation, avoidance of alcohol, relaxation technique. Each correct answer carries one mark, and the wrong answer carries zero marks. The possible maximum score was30, the possible minimum score was 0. Knowledge questions were prepared in the English language.

Section- C: Structured Attitude Questionnaire

It consists of 14 statements to assess the attitude regarding lifestyle modifications. Both positive and negative statements are formed based on modified Likert attitude scale. The maximum score is 70 and the minimum score isl.

Table 3. 1: Grading of Attitude, Level

Attitude	Scores	
	Positive statements (Questions No.1, 2, 3, 5, 7, 8, 9, 10, 11, 12, 13)	**Negative statements (Questions No. 4, 6, l4)**
Strongly agree	5	1
Agree	4	2
Undecided	3	3
Disagree	2	4
Strongly disagree	1	5

3.11 TOOL VALIDITY AND RELIABILITY

3.11.1 Content Validity

The tool was given to 5 experts in the field of nursing and medicine for content validity. All comments and suggestion given by experts were duly considered and corrections were made after discussion with the research guide. The modifications were incorporated in the preparing of final tool.

3.11.2 Reliability

The reliability of the tool was obtained by the Spearman split half method to make sure the reliability of the tool. The value of knowledge scorer was 0.93 and for attitude, score was 0.9. This tool was highly reliable.

3.12 PILOT STUDY:

It was conducted among 4 samples for a period of one week. The pre-test result of this study showed that the patients with chronic kidney disease had inadequate

knowledge and attitude. Structured teaching programme was given for 45 minutes and the post-test was conducted on the 7thday. The post-test score showed a significant increase in the knowledge and attitude regarding the lifestyle modifications among patients with chronic kidney disease. The pilot study revealed that the present study was feasible to conduct.

3.13 DATA COLLECTION PROCEDURE

Formal permission was obtained from the Managing Director of Balaji Hospital, Coimbatore.

The study was carried out for a period of four weeks from 1st January 2018 to30th January2018. Confidentiality and anonymity of the subjects were maintained. Informed consent was obtained from the respondent and the respondent was selected on the basis of the selection criteria.

On the first day, demographic data were collected by a structured questionnaire and pre-test was conducted to assess the knowledge and attitude regarding lifestyle modifications among patients with chronic kidney disease by using a questionnaire. After the pre-test, structured teaching was given for 45 minutes about lifestyle modifications among patients with chronic kidney disease. The patients were encouraged to clarify their doubts. Post-test was conducted on the 15thday by using the same questionnaire to assess the effectiveness of structured teaching programme on improving the knowledge and attitude regarding lifestyle modifications. At the end of the session, booklets were distributed to the patients, those who have participated in the teaching programme.

3.14 PLAN FOR DATA ANALYSIS

Data were analyzed by using descriptive and inferential statistics. Descriptive statistics were used to analyze the frequency, percentage, mean, standard deviation. Inferential statistics, paired ‘t' test was used to assess the effectiveness of knowledge and attitude of chronic kidney disease patients. Karl Pearson's Co-efficient was used to assess

the relationship between knowledge and attitude of reading lifestyle modifications among patient with chronic kidney disease and the χ^2 test was used to find out the association between the selected demographic variables with the pre-test knowledge and attitude scores.

3.15 ETHICAL CONSIDERATION

Research was conducted after the approval of the research committee and the hospital. The nature and purpose of the study were explained to the authorities of Balaji hospital, Coimbatore. Oral consent was obtained from the participants. Assurance was given to the study samples that the anonymity of each individual was maintained strictly.

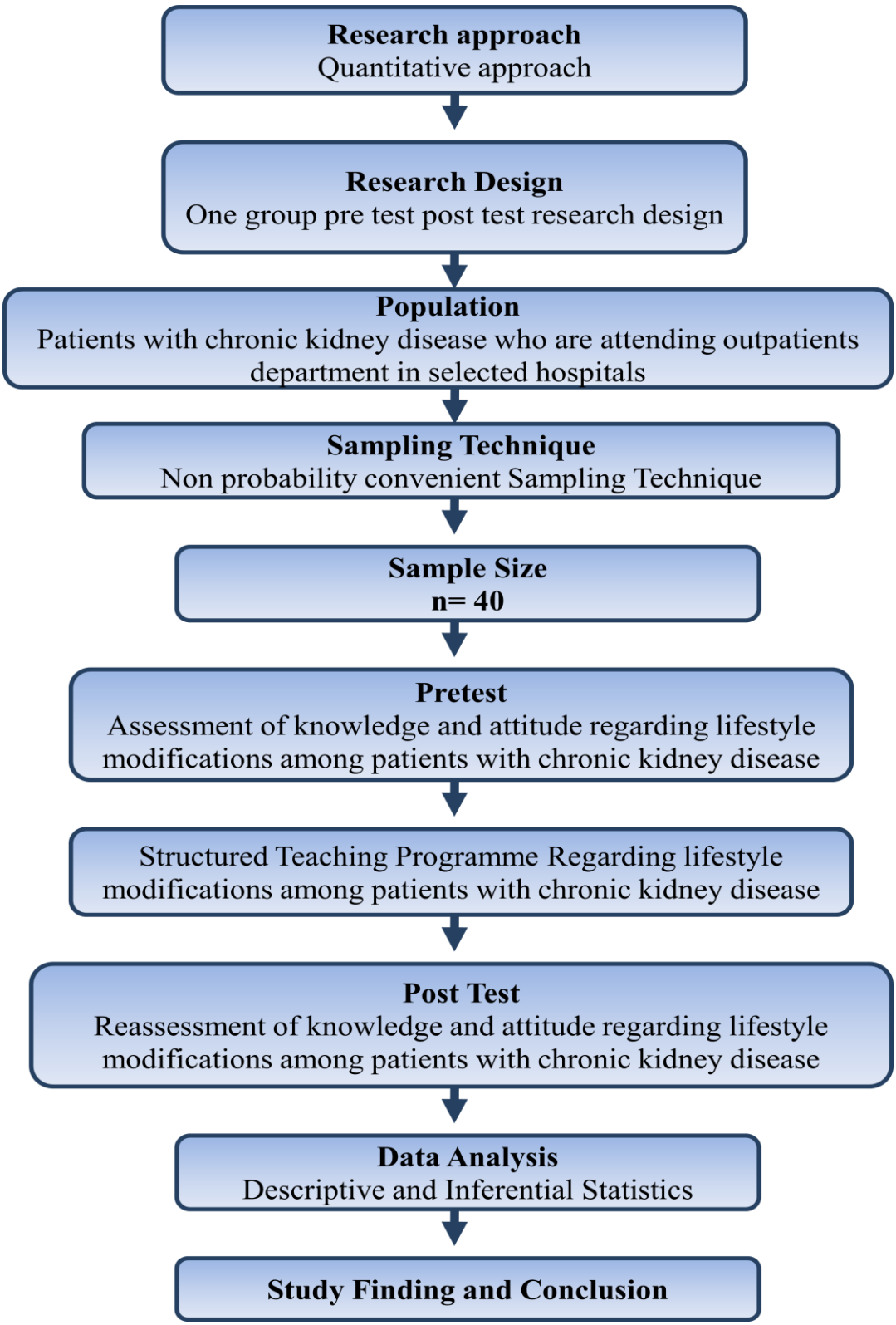


Figure 3.3 The schematic representation of Research Methodology

CHAPTER-IV

DATA ANALYSIS AND INTERPRETATIONS

This chapter deals with the analysis and interpretation of the data collected from patients with chronic kidney disease in St. Mary's Hospital, Coimbatore regarding lifestyle modifications.

The findings, based on the descriptive and inferential statistical analysis tabulated as follows

Section- I: Distribution of demographic variables of patients with chronic kidney disease.

Section- II: Description of statistical value of pretest and post-test knowledge scores regarding lifestyle modifications among patients with chronic kidney disease.

Section – III: Description of statistical value of pretest and posttest attitude scores regarding lifestyle modifications among patients with chronic kidney disease.

Section – IV: Correlation of pretest and posttest knowledge and attitude scores regarding lifestyle modifications among patients with chronic kidney disease

Section-V: Association of selected demographic variables with pre-test scores of knowledge regarding lifestyle modifications among patients with chronic kidney disease.

Section-VI: Association of selected demographic variables with pre-test scores of attitude regarding lifestyle modifications among patients with chronic kidney disease.

SECTION – I

DISTRIBUTION OF DEMOGRAPHIC VARIABLES OF PATIENTS WITH CHRONIC KIDNEY DISEASE

Table: 4.1 Frequency and percentage distribution of samples with the selected Demographic variables

n=40

S.No	Demographic variable	Frequency (f)	Percentage (%)
1	Age		
	a) 21-30 years	2	5
	b) 31-40 years	8	20
	c) 41-50 years	14	35
	d) >51 years	16	40
2	Sex		
	a) Male	28	70
	b) Female	12	30
3	Religion		
	a) Hindu	31	77.5
	b) Muslin	6	15
	c) Christian	3	7.5

4	Education		
	a) Illiterate	2	5
	b) Primary	18	45
	➢ Secondary	12	30
	➢ Graduate/diploma	8	20
5	Occupation		
	a) Unemployed	10	25
	b) Self-employed	8	10
	c) Government employee	5	12.5
	d) Private employee	11	27.5
	e) Coolie worker	06	15
6	Income		
	a) < Rs. 5000	10	25
	b) Rs. 5001 - 15000	9	22.5
	c) Rs. 15001 - 25000	11	27.5
	d) >Rs - 25001	10	25
7	Marital status		
	a) Married	34	85
	b) Unmarried	4	10
	c) Others	2	5
8	Types of family		
	a) Joint family	12	35
	b) Nuclear	28	65
9	Dietary pattern		
	a) Vegetarian	6	15
	b) Non vegetarian	34	85

10	Body built		
	a) Thin	10	25
	b) Moderate	20	50
	c) Obese	7	17.5
	d) Very obese	3	7.5
11	Duration ofdisease		
	a) 1-5 months	0	0
	b) 6-10 months	5	12.5
	c) 1 1-15 months	14	35
	d) 16-24 months	21	52.5
12	Personal habits		
	a) Alcohol	10	25
	b) Smoking	9	22.5
	c) Alcohol and smoking	7	17.5
	d) Tobacco chewing	0	0
	e) None of the above	14	35
13	Associated illness		
	a) Diabetes	11	27.5
	b) Hypertension	15	37.5
	c) Cardiovascular disease	8	20
	d) Obesity	0	0
	e) None of the above	6	15

Table 4.1 1 shows the description of demographic variables of chronic kidney disease patient.

Among the respondents, 2 (5%) were aged between 21-30 years, 8 (20%) were aged between 3- 40 years, 16(40%) were aged between 41-50 years, 14 (35%) were >50 years of age.

Regarding gender, the respondents 28(70%) were males and 12(30%)were females.

Considering the religion, 31(77.5%) were Hindu, 6(15%) were Muslims and 3(7.5%) were Christian.

Regarding education, 2(5%) were illiterate, 18(45%) had primary education, 12(30%) had secondary education and 8(20%) were graduates and diploma holders.

Regarding occupation 10 (25%) were unemployed, 8 (20%) were self-employed, 5(12.5%) were government employees, 11 (27.5%) were private employees and 6(15%) were coolie workers.

Regarding the monthly income of the family 10 (25%) were earning more than Rs. >5000, 9 (22.5%) were earning between Rs. 5001-15000, 11(27.5%) were earning between Rs. 15001-25000, 10 (25%) were earning more than Rs. 25001.

Regarding marital status 34 (85%) were married, 4 (10%) were unmarried, 2(5%) were others.

Regarding the type of family 12 (30%) were belongs to the joint family, 28 (70%) belonged to a nuclear family.

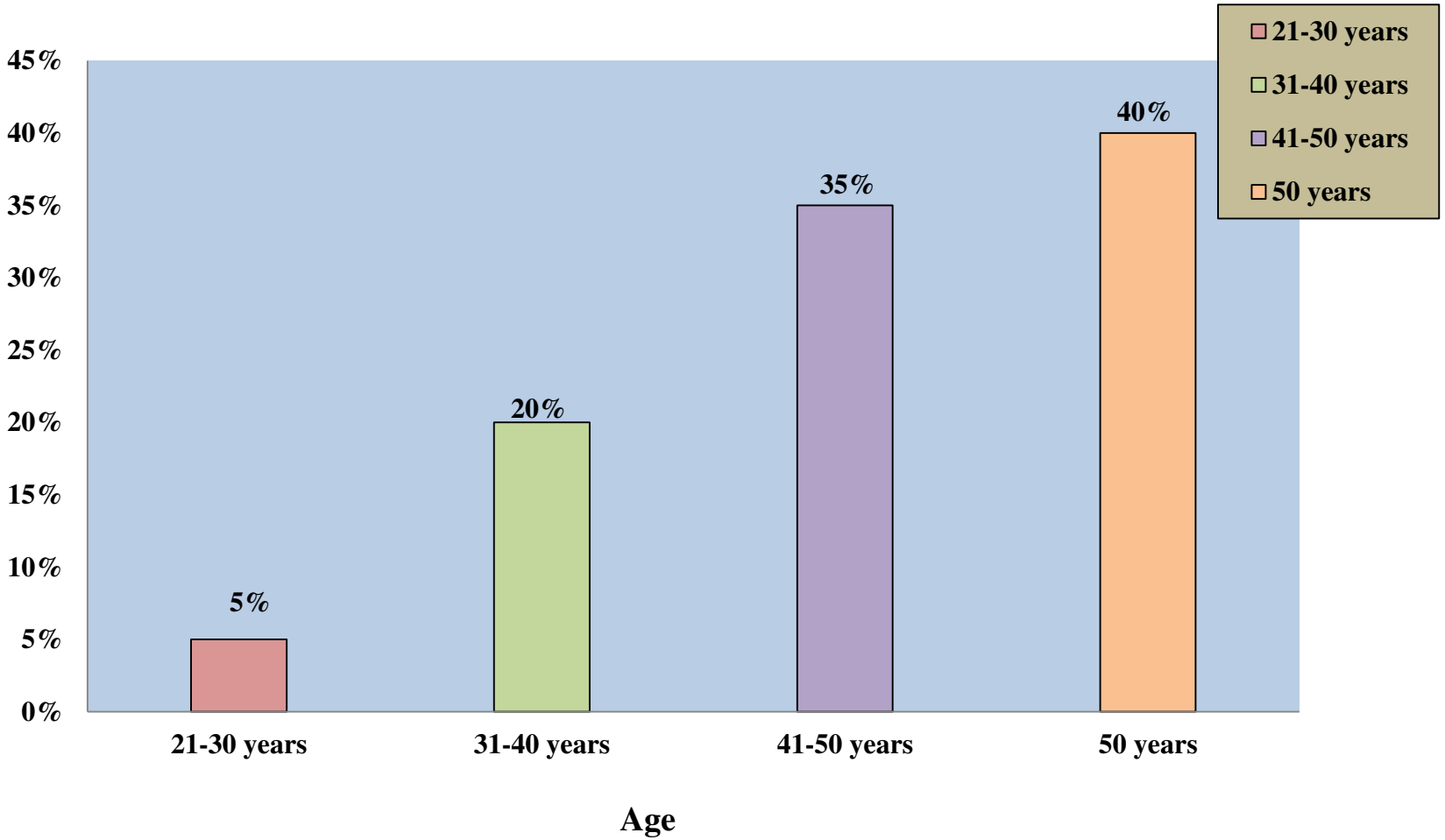
Regarding dietary pattern 6(15%) were vegetarian, 34(85%) were non vegetarian.

Regarding body built 10(25%) had a thin body built, 20(50%) were moderately built, 7(17.5%) were obese and 3(7.5%) were very obese.

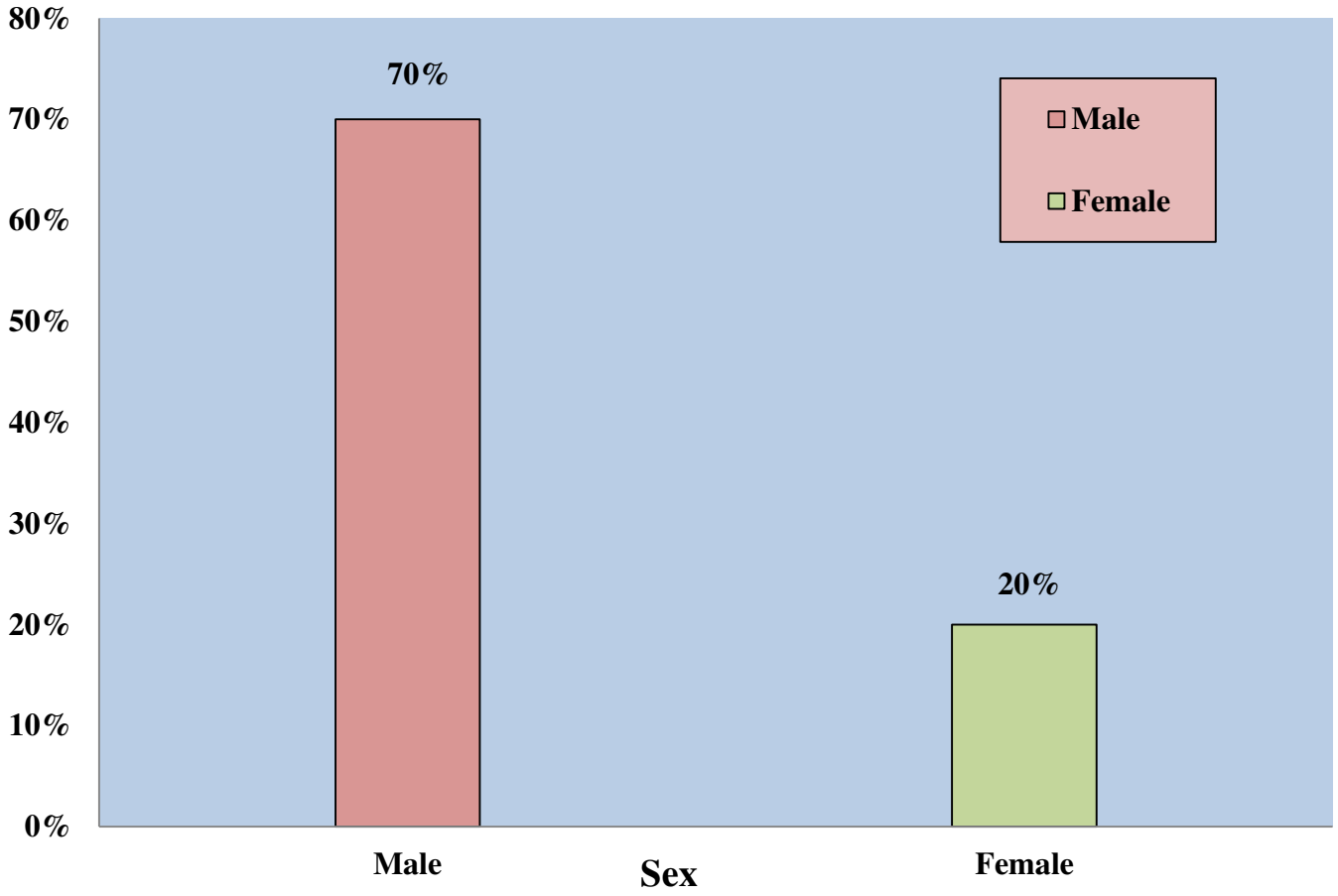
With regards of the duration of chronic kidney disease in 1-5 months were no cases, 5(12.5%) were having during of 6-10 months, 14(3500) were having during of 11-15 months, 21 (52.5%) were having during of 16-24 months.

About personal habits 10(25%) were having a habit of alcohol, 9(22.5%) were having a habit of smoking, 7(17.5%) were having habits of alcohol and smoking, no one is having a habit of tobacco and 14(35%) were none of the above.

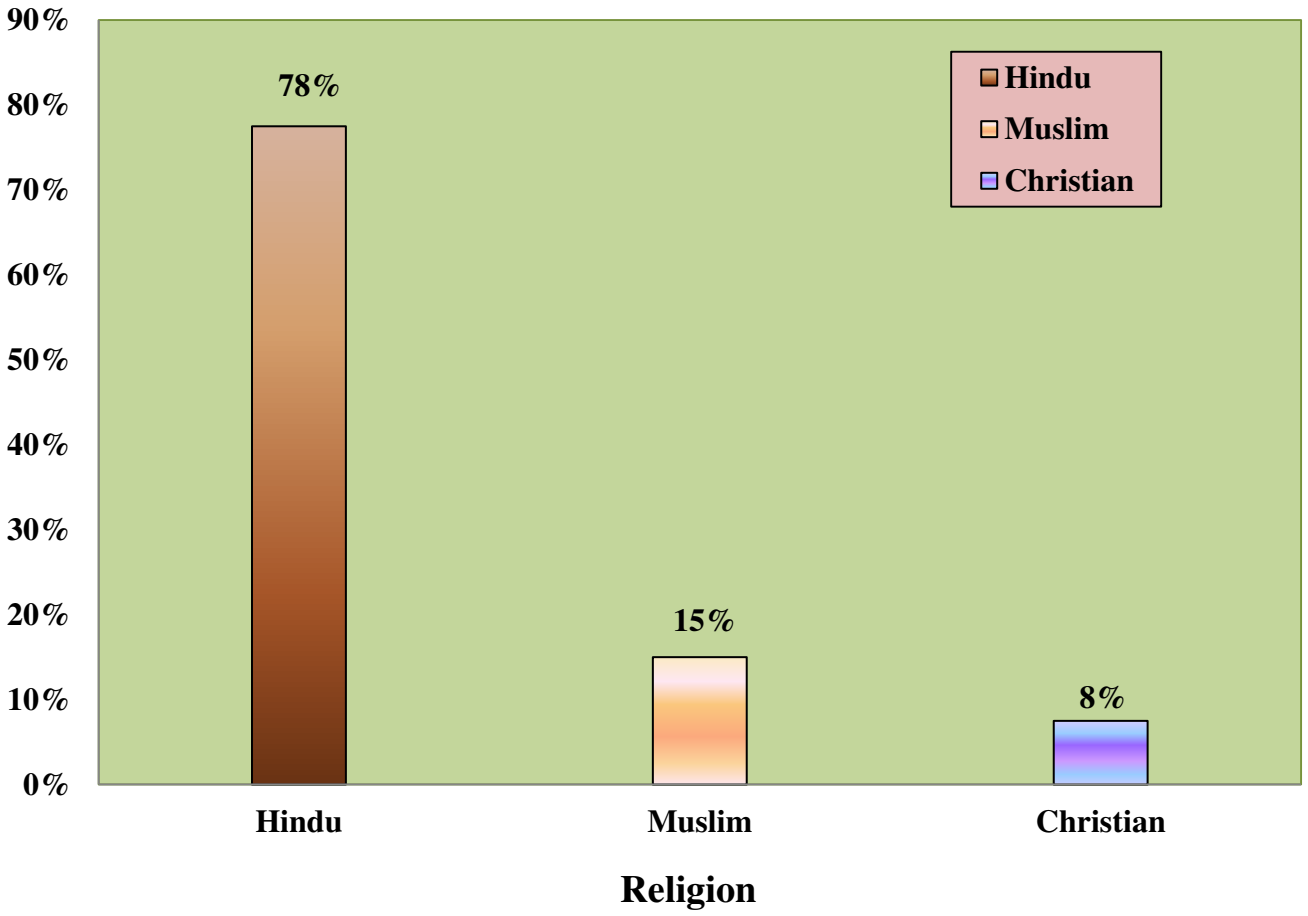
Regarding associated illness 1 1(27.5%) respondents were having diabetes, 15(37.5%) were having hypertension, 8(20%) were having cardiovascular disease, no one is having an obesity-associated illness and 6(15%) were coming under none of the above categories.



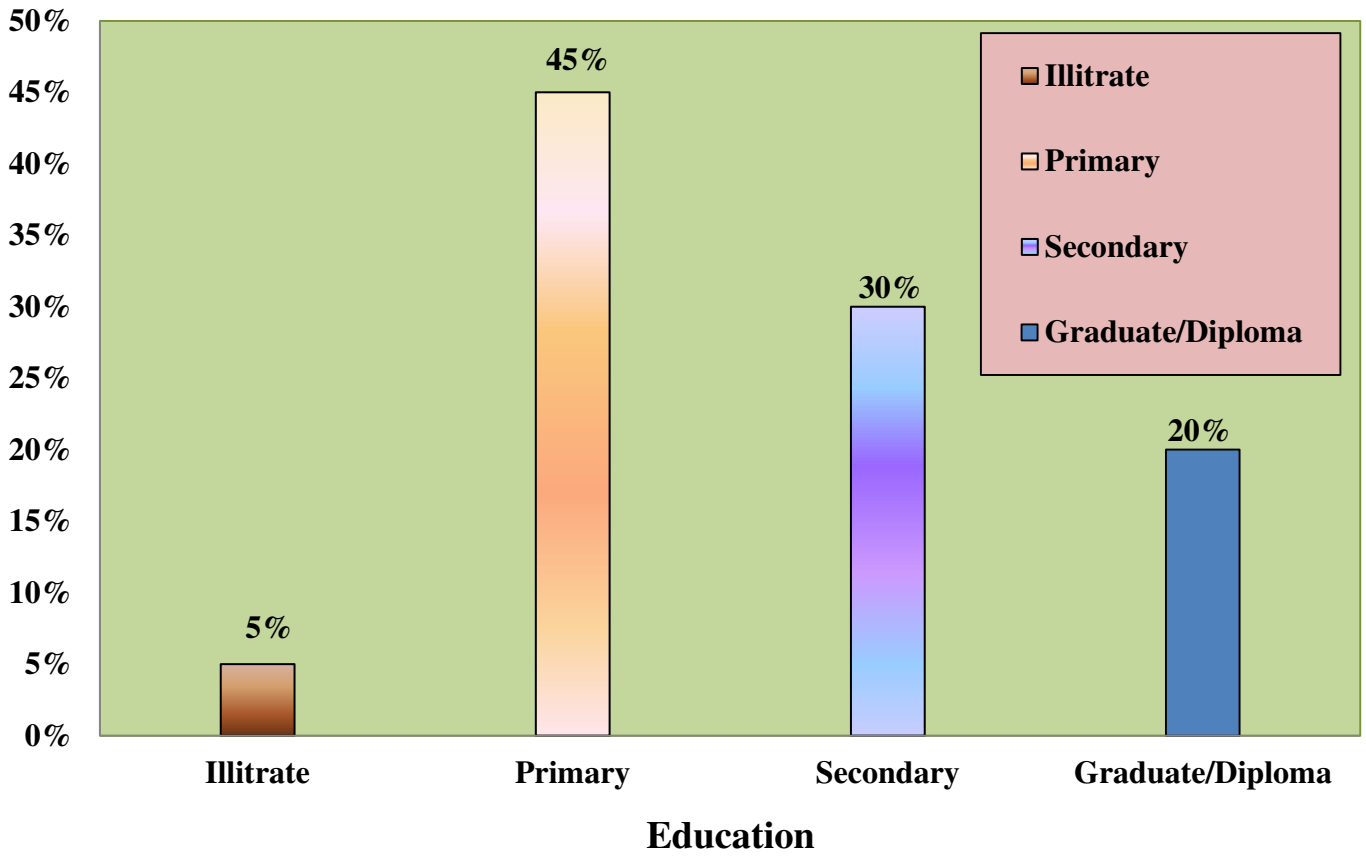
4.1.1 A Bar diagram Showing distribution of demographic Variables according to the Age



4.1.2 Bar diagram Showing distribution of demographic Variables according to the Sex

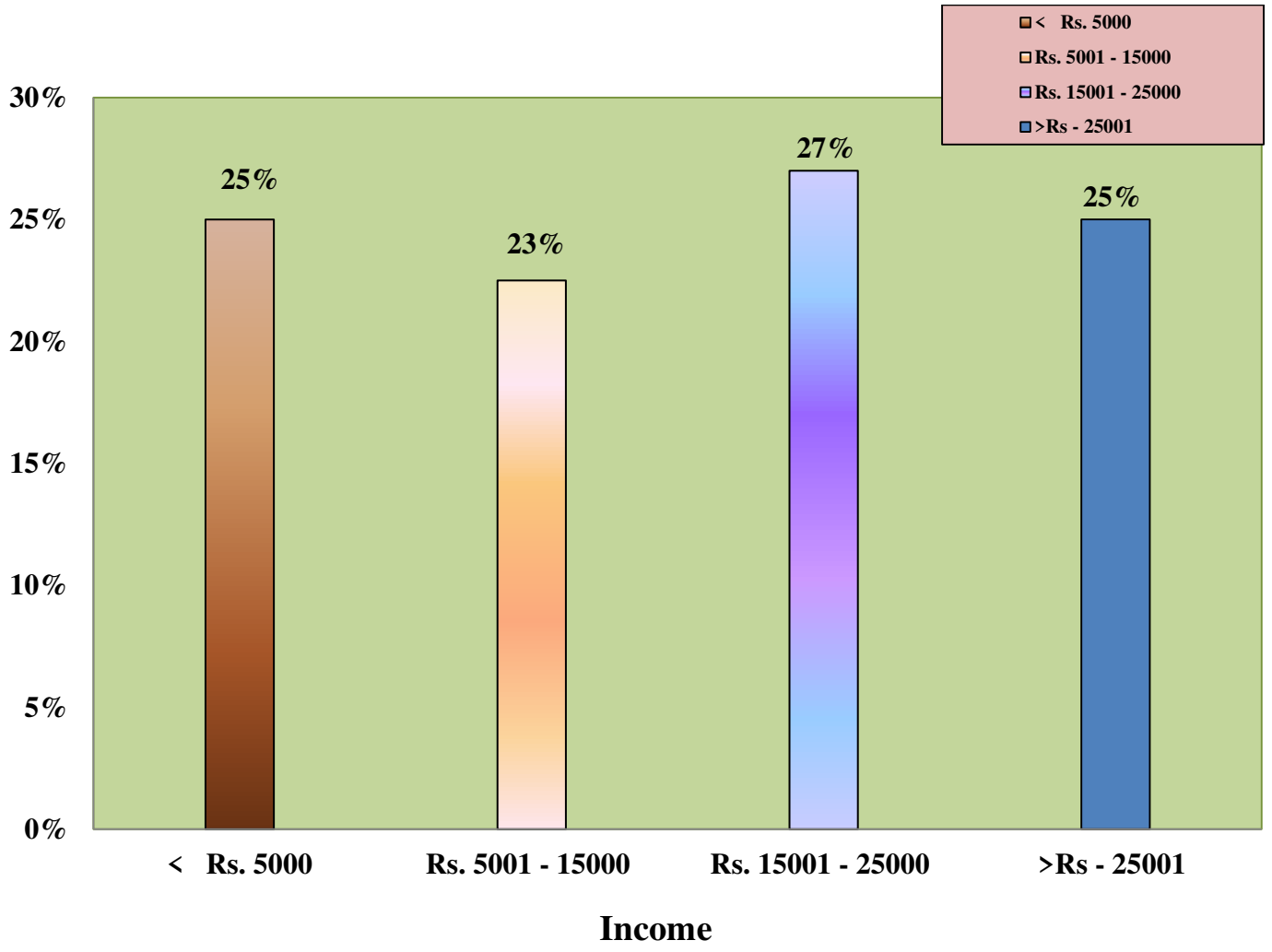


4.1.3 Bar diagram Showing distribution of demographic Variables according to the Religion

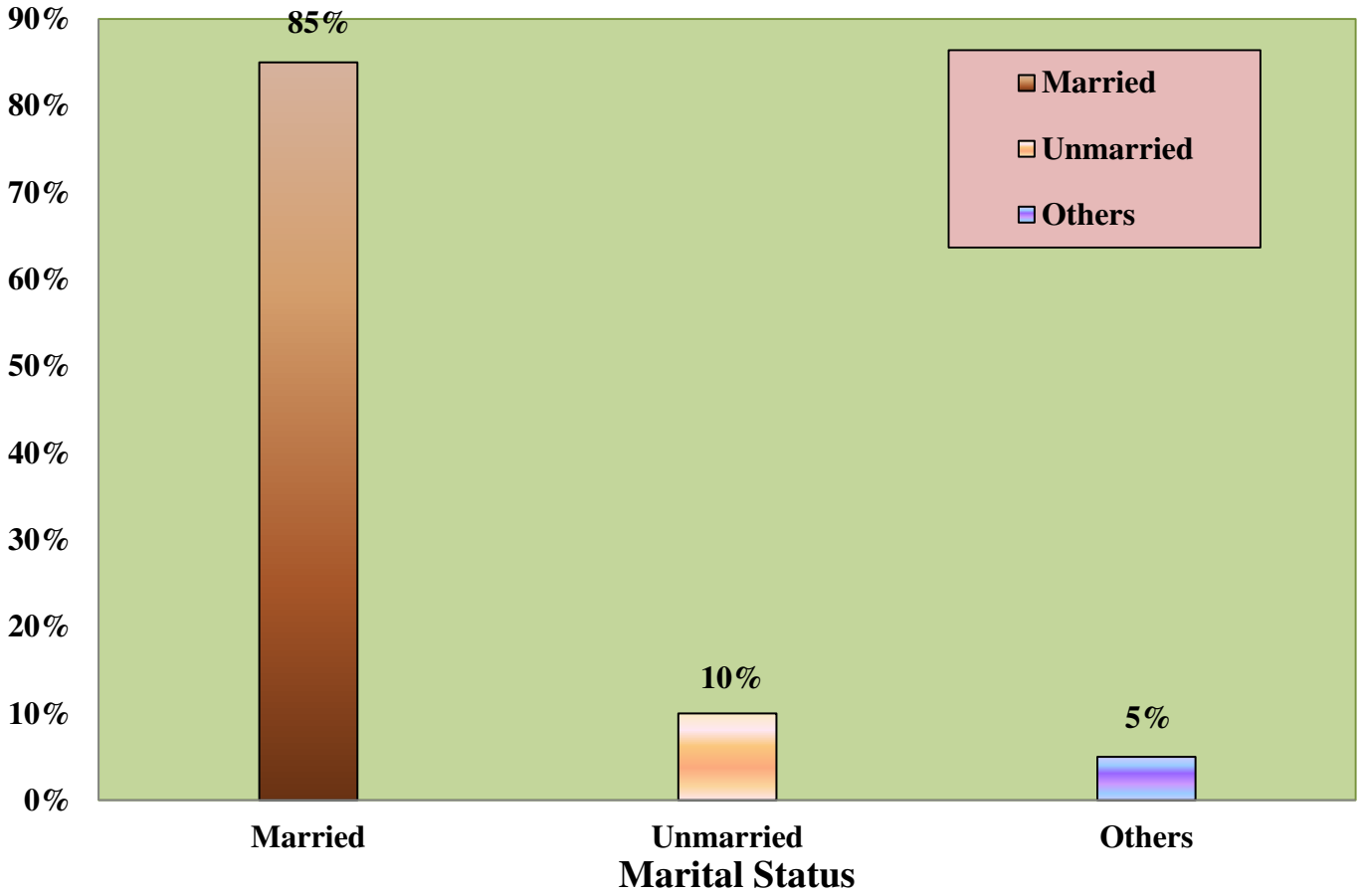


4.1.4 Bar diagram Showing distribution of demographic Variables according to the Education

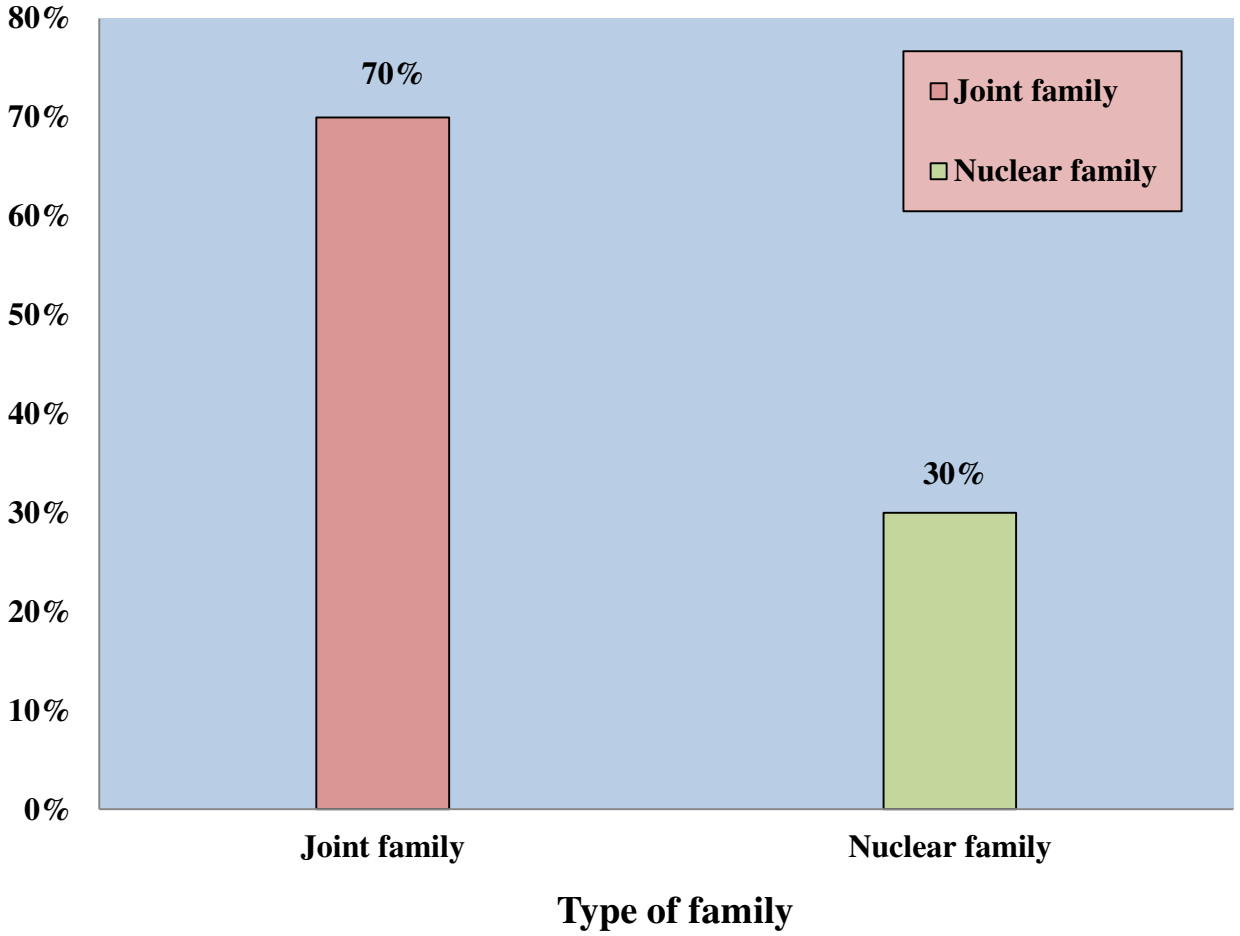
4.15 Bar diagram Showing distribution of demographic Variables according to the Occupation



4.1.6 Bar diagram Showing distribution of demographic Variables according to the Income



4.17 Bar diagram Showing distribution of demographic Variables according to the marital status



4.1.8 Bar diagram Showing distribution of demographic Variables according to the Type of family

SECTION – II

Description of Statistical Value of Pre-test and Post-test knowledge Scores Regarding lifestyle modifications Among Patients with Chronic Kidney Disease

Table 4.2: Mean, standard deviation and t" value of Pre-test and Post-test knowledge Scores Regarding lifestyle modifications Among Patients with Chronic Kidney Disease

(n=40)

S.No	Knowledge	Mean	SD	't' value	Level of significance
1	Pre-test	15.77	3.9	16.87*	0.05*
2	Post-test	22.82	2.97		

*significant

Table 2 shows that the mean score of knowledge in pre-test was 15.77 and post-test was 22.82. The calculated 't' value 16.87 at df (39) was greater than the table value at 0.05 level of significance. It reveals that there was a significant difference between the pre-test and post-test knowledge scores. So the results are concluded that structured teaching programme has a significant effect on improving the level of knowledge among patients with chronic kidney disease.

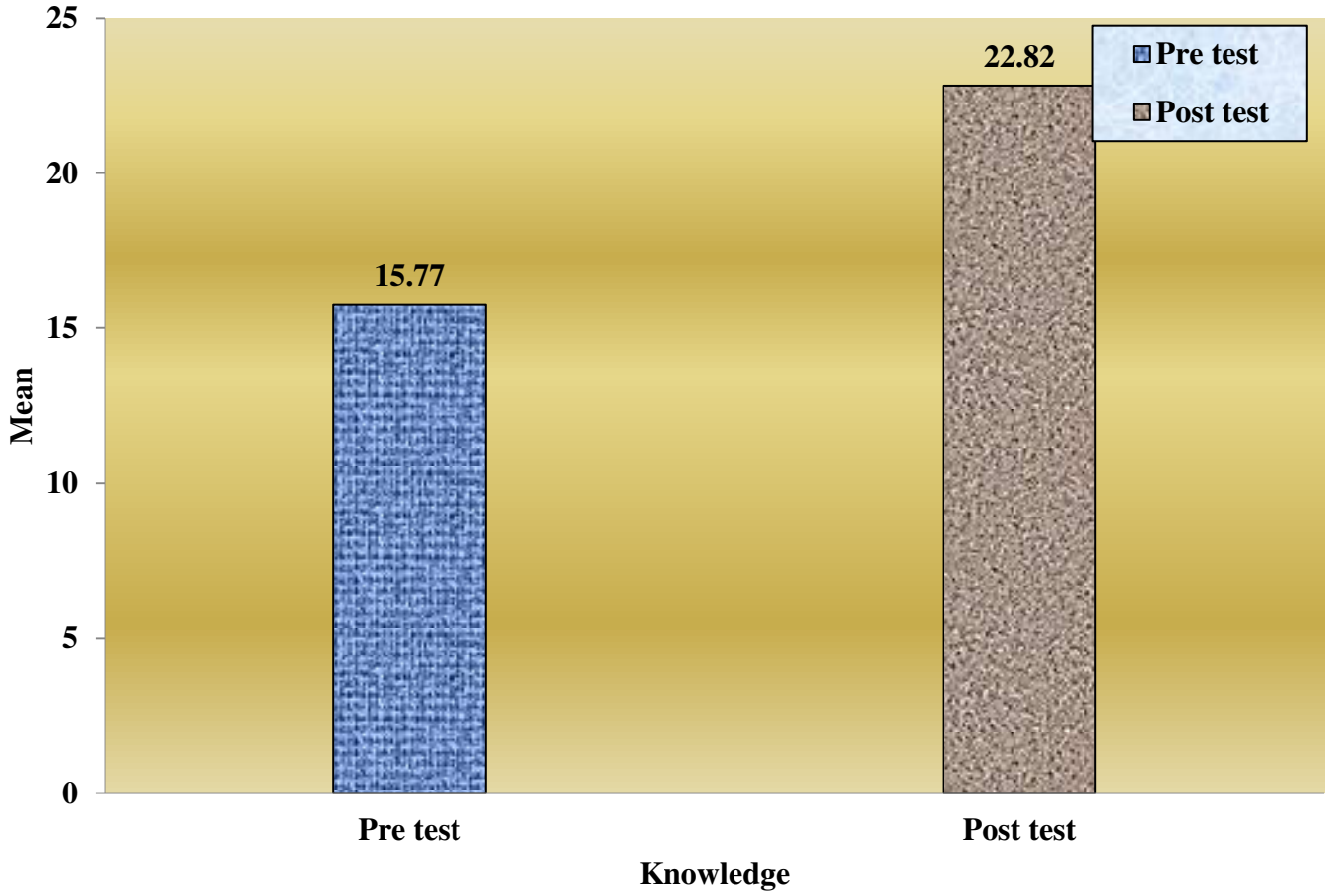


Figure 4.2.1 Distribution of Pretest and Post Test Knowledge Mean Scores Regarding Life Style Modification Among Patients with Chronic KidneyDisease

SECTION – II

Description of Statistical Value of Pre-test and Post-test attitude Scores Regarding lifestyle modifications Among Patients with Chronic Kidney Disease.

Table 4.3 Mean, standard deviation and t" value of Pre-test and Post-test attitude Scores Regarding lifestyle modifications Among Patients with Chronic Kidney Disease.

(n=40)

S.No	Attitude	Mean	SD	't' value	Level of significance
1	Pre-test	41.25	9.59	18.87*	0.05*
2	Post-test	538	7.33		

*significant

Table 3 shows that the mean score of attitude on the pre-test was 41.25 and the post-test score was 53.8. The calculated 't' value 18.87 at df (39) was greater than the table value at 0.05 level of significance. It reveals that there was a significant difference between the pre-test and post-test attitude scores. So the results are concluded that structured teaching programme has a significant effect on the improvement of attitude regarding lifestyle modification among patients with chronic kidney disease.

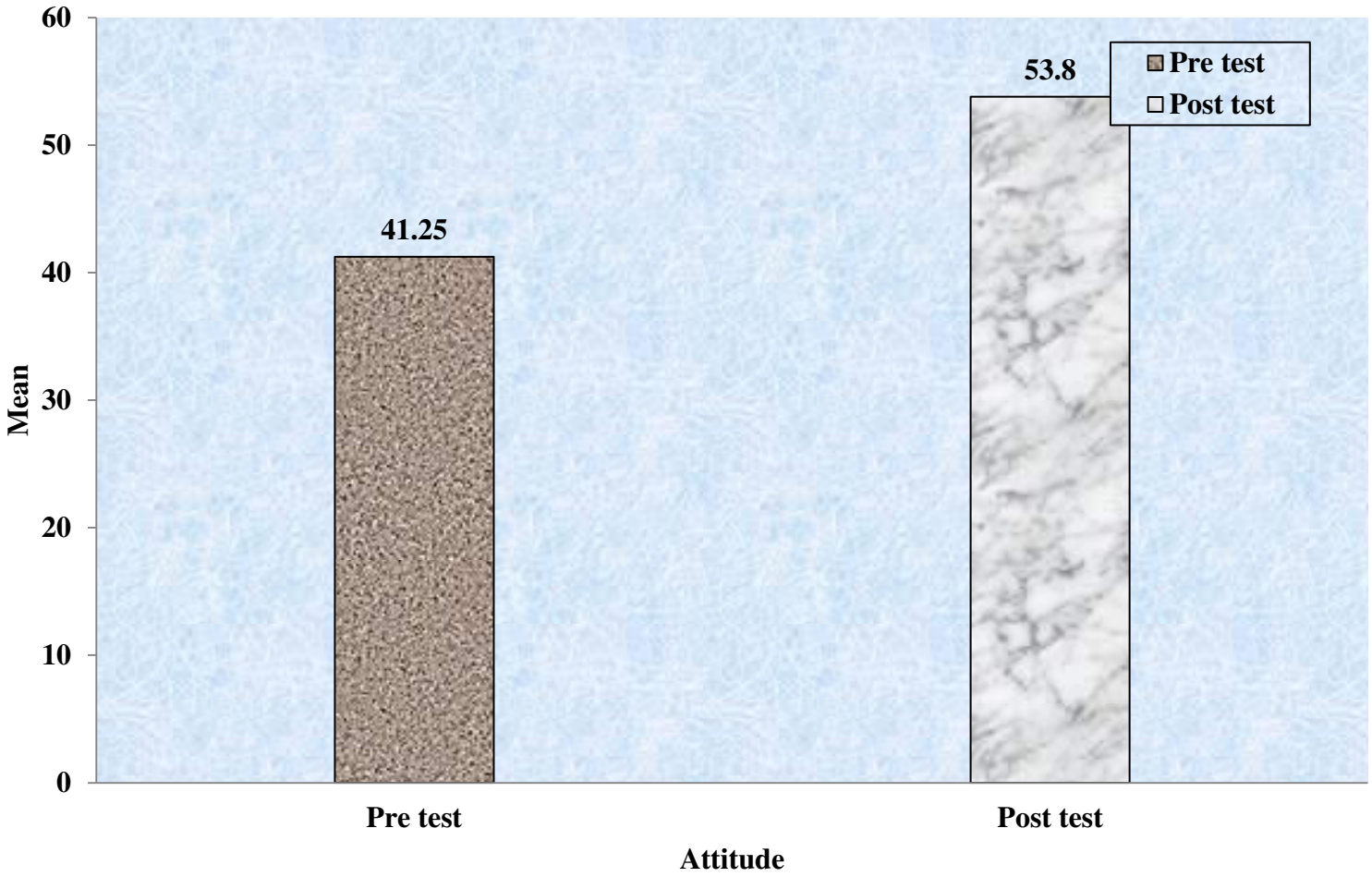


Figure 4.3.1: Distribution of Pre-test and Post Test Attitude Mean Scores Regarding Life Style Modification Among Patients with Chronic KidneyDisease

SECTION-IV

Correlation of pretest scores of the knowledge and attitude regarding life style modification among patients with chronic kidney disease

Table.4.4 : Mean, standard deviation and correlation of pretest scores of the knowledge and attitude regarding life style modification among patients with chronic kidney disease

(n=40)

S.No	Pretest	Mean	S.D	r
1	Knowledge	15.77	3.9	+0.67
2	Attitude	41.2	9.59	

Table. 4shows that there was a positive correlation between the knowledge and attitude in the pre-test.

Table. 4. 5 Mean, standard deviation and correlation of post test scores of the knowledge and attitude regarding life style modification among patients with chronic kidney disease.

(n=40)

S.No	Post test	Mean	S.D	r
1	Knowledge	22.82	2.97	+0.73
2	Attitude	53.5	7.33	

Table 5 shows there was a positive correlation between knowledge and attitude in pretest and post-test. Compare with pre-test, the post-test ‘t' score is increased. It shows that parents developed adequate knowledge and favorable attitude after the structured teaching programme.

SECTION – V

Association of Demographic Variables with Pretest Scores of Knowledge Regarding Life Style Modifications Among Patients with Chronic Kidney Disease.

Table.4.6: Association of pretest scores of knowledge regarding life style modifications among patients with chronic kidney disease with selected demographic variables.

n=40

S.No	Demographic variable	Above Mean	Below Mean	Degrees of Freedom	$\chi 2$
1	Age				
	a. 21-30 years	1	1	3	1.421
	b. 31-40 years	4	4		
	c. 41-50 years	6	10		
	d. >51 years	8	6		
2	Sex				
	a. Male	12	16	1	0.78
	b. Female	7	5		
3	Religion				
	a. Hindu	15	16	2	2.63
	b. Muslin	1	5		
	c. Christian	2	1		
4	Education				
	a. Illiterate	0	2	3	13.45*
	b. Primary	5	13		
	c. Secondary	6	6		
	d. Graduate/diploma	8	0		

5	Occupation				
	a. Unemployed	5	5		
	b. Self-employed	3	5	4	1.35
	c. Government employee	3	2		
	d. Private employee	6	5		
	e. Coolie worker	2	4		
6	Income				
	a. < Rs. 5000	5	5		
	b. Rs. 5001 - 15000	4	5	3	1.9
	c. Rs. 15001 -25000	4	7		
	d. >Rs - 25001	6	4		
7	Marital status				
	a. Married	15	19		
	b. Unmarried	2	2	2	2.34
	c. Others	2	0		
8	Types of family				
	a. Joint family	7	5	1	2.20
	b. Nuclear	12	16		
9	Dietary pattern				
	a. Vegetarian	3	3	1	0.95
	b. Non vegetarian	16	8		
10	Body built				
	a. Thin	5	5		
	b. Moderate	11	9	3	3.22
	c. Obese	3	4		
	d. Very obese	0	3		

11	Duration ofdisc\ease				
	a. 1-5 months	0	0		
	b. 6-10 months	2	3	3	0.13
	c. 11-15 months	7	7		
	d. 16-24 months	10	11		
12	Personal habits				
	a. Alcohol	6	4		
	b. Smoking	1	8		
	c. Alcohol and smoking	4	3	4	6.1
	d. Tobacco chewing	0	0		
	e. None of the above	8	6		
13	Associated illness				
	a. Diabetes	6	5		
	b. Hypertension	8	7		
	c. Cardiovascular disease	2	6	4	1.93
	d. Obesity	0	0		
	e. None of the above	3	3		

*significant

Table. 4. 6 shows the association of knowledge with demographic variables with pretest knowledge score on lifestyle modification among patients with chronic kidney disease. The obtained "χ^{2}" value of education was 13.45 at 4 (df) significant at 0.05 level. It shows that there was an association between education score with a knowledge score of the pre-test. The other variables like age, sex, religion, occupation. Income, marital status, type of family, dietary pattern, duration of disease, personal habits, associated illness were not associated with a knowledge score of the pre-test.

SECTION – VI

Association of Demographic Variables with Pretest Scores of Attitude Regarding Life Style Modifications Among Patients with Chronic Kidney Disease.

Table.4.7 Association of pretest scores of an Attitude regarding life style modifications among patients with chronic kidney disease with selected demographic variables.

S.No	Demographic variable	Above Mean	Below Mean	Degrees of Freedom	$\chi 2$
1	**Age**				
	a. 21-30 years	**2**	**0**		
	b. 31-40 years	**4**	**4**	**3**	**3.39**
	c. 41-50 years	**9**	**7**		
	d. >51 years	**5**	**9**		
2	**Sex**				
	a. Male	15	13	1	0.46
	b. Female	5	7		
3	**Religion**				
	a. Hindu	16	15		
	b. Muslin	3	3	2	0.25
	c. Christian	2	1		
4	**Education**				
	a. Illiterate	0	2		
	b. Primary	9	9	3	2.50
	c. Secondary	6	6		
	d. Graduate/diploma	5	3		

5	**Occupation**				
	a. Unemployed	3	7		
	b. Self-employed	3	5		
	c. Government employee	3	2	4	2.73
	d. Private employee	8	3		
	e. Coolie worker	3	3		
6	**Income**				
	a. < Rs. 5000	4	6		
	b. Rs. 5001 - 15000	6	3		
	c. Rs. 15001 -25000	3	8	3	5.25
	d. >Rs - 25001	7	3		
7	**Marital status**				
	a. Married	17	17		
	b. Unmarried	3	1	2	3.0
	c. Others	0	2		
8	**Types of family**				
	a. Joint family	6	6	1	0
	b. Nuclear	14	14		
9	**Dietary pattern**				
	a. Vegetarian	2	4	1	0.76
	b. Non vegetarian	18	16		
10	**Body built**				
	a. Thin	4	6		
	b. Moderate	12	8	3	4.39
	c. Obese	4	3		
	d. Very obese	0	3		

11	**Duration ofdisc\ease**				
	a. 1-5months	0	0		
	b. 6-10months	4	1	3	2.22
	c. 11-15 months	7	7		
	d. 16-24 months	9	12		
12	**Personal habits**				
	a. Alcohol	6	4		
	b. Smoking	5	4	4	1.78
	c. Alcohol and smoking	4	3		
	d. Tobacco chewing	0	0		
	e. None of the above	5	9		
13	**Associated illness**				
	a. Diabetes	4	7		
	b. Hypertension	7	8		
	c. Cardiovascular disease	4	4	4	3.52
	d. Obesity	0	0		
	e. None of the above	5	1		

*significant

Table 4.7 shows the association of attitude with demographic variables by χ^2test. It reveals that the age, sex, religion, occupation, income, marital status, type of family, body built, duration of chronic kidney disease, personal habits, associated illness obtained had no significant association with a pretest attitude score of subjects. So there is no association between attitude and selected demographic variables.

CHAPTER V

FINDINGS AND DISCUSSION

This is a non-experimental study to assess the effectiveness of structured teaching programme on knowledge and attitude regarding lifestyle modifications among patients with chronic kidney disease. The data were analyzed using descriptive and inferential statistics. The result of the study was discussed according to the objective.

The first objective of the study was to assess the level of knowledge and attitude regarding life style modifications among patients with chronic kidney disease

The pre-test score of knowledge was 15.77 and post-test was 22.82. The pretest score of the attitude was 41.25 and post-test was 53.8. It shows a significant difference in pretest and post-test scores. It implies that there were an inadequate knowledge and attitude on lifestyle modifications among patients with chronic kidney disease.

A study was conducted by Tamizuddin (2010) showed that 55% of the persons with chronic kidney disease had inadequate knowledge and attitude regarding lifestyle modifications and prevention of complication among patients with chronic kidney disease.

The second objective of the study was to administer a video assistedstructured teaching programme on lifestyle modifications among patients with chronic kidney disease

The samples were selected by non-probability convenient sampling technique on the basis of selection criteria. The teaching programme was given regarding lifestyle modifications among chronic kidney disease patients with the help of liquid crystal

display and booklets were distributed. The structured teaching programme consists of aspects like diet therapy, exercise therapy, relaxation techniques, avoidance of alcohol, smoking preventingcomplication. The duration of the teaching programme was 45 minutes and it was found to be effective and they communicated and clarified their doubts related to lifestyle.

A similar study conducted by Michelle. M. Estrella (2014) to evaluate the effectiveness of structured teaching programme on management of chronic kidney disease. Post-test was conducted after a week. It revealed that the teaching programme was effective in improving the knowledge and attitude after the teaching programme.

The third objective was to assess the effectiveness of video assisted structured teaching programme on the level of knowledge and verbal responses structured interview schedule for attitude regarding lifestyle modifications among patients with chronic kidney disease.

The pre-test means score for the knowledge was 15.77 and post-test mean score Was 22.82. Thereby the 't' value of knowledge was 16.87. The pre-test mean score for attitude was 46.3 and the post-test mean score was 57.1. Thereby the ‘t’ value for attitude was 18.87.

Both the ‘t’ value obtained from knowledge and attitude were higher than the table value at 0.05 level of significance. This reveals that there was a significant improvement in knowledge and attitude about lifestyle modifications among patients with chronic kidney disease. This, in turn, reveals that the structured teaching programme was effective.

A similar study was conducted by Mason. J (2009) to assess the effectiveness of an educational programme on interventions in chronic kidney disease management for chronic disease patients. The study result showed that there was a significant improvement in knowledge and attitude after teaching programme. The study results

concluded that structured educational intervention was effective in improving knowledge and attitude among chronic kidney disease patients

The fourth objective of the study was to find out the correlation between knowledge and attitude regarding life style modifications among patients with chronic kidney disease

The Karl Pearson's Correlation Coefficient ‘r' was used to find out the relationship between knowledge and attitude regarding lifestyle modifications among patient with chronic kidney disease. The ‘r' value of pre-test is + 0.67 and post-test is +0.73. It reveals that there is an improvement in knowledge which significantly influences the attitude of the chronic kidney disease patients.

Monro (2009) conducted a study to evaluate the effectiveness of teaching programme on lifestyle modifications among patients with chronic kidney disease. The studyresultshows that the patient knowledge is increased when the attitude is increased.

The fifth objective of the study was to find out the association between knowledge and attitude regarding lifestyle modifications among patients with chronic kidney disease with selected demographic variables.

In the demographic variables, education had a significant relation to pretest knowledge. All other demographic variables had no significant relationship with pre-test knowledge regarding lifestyle modifications among patients with chronic kidney disease.

The demographic variables had no significant relationship with pre-test attitude regarding lifestyle modifications among patients with chronic kidney disease.

A similar type of study was conducted by Chow. W. L (2011) to find out the knowledge of chronic kidney disease among primary care patients. It reveals that there was no significant association between selected demographic variables and level of knowledge regarding the chronic kidney disease.

CHAPTER - Vl

SUMMARY, CONCLUSION, NURSING IMPLICATIONS, LIMITATIONS AND RECOMMENDATIONS

6.1 SUMMARY

This study was conducted to determine the effectiveness of video assisted teaching programme on knowledge and attitude regarding lifestyle modifications among patients with chronic kidney disease.

6.1.1 Objectives

- To assess the level of knowledge and attitude regarding lifestyle modifications among patients with chronic kidney disease.
- To administer a video assisted structured teaching programme on lifestyle modifications among patients with chronic kidney disease.
- To assess the effectiveness of video assisted structured teaching programme on the level of knowledge and verbal responses structured interview schedule for attitude regarding lifestyle modifications among patients with chronic kidney disease.
- To find out the correlation between knowledge and attitude regarding lifestyle modifications among patients with chronic kidney disease.
- To find out the association between knowledge and attitude regarding lifestyle modifications among patients with chronic kidney disease with selected demographic variables.

6.1.2 Hypothesis:

- **H1:** There will be a significant difference between pretest and post-test level of knowledge and attitude scores regarding lifestyle modifications among patients with chronic kidney disease.
- **H2**: There will be a significant correlation between the pre-test level of knowledge and attitude scores regarding lifestyle modifications among patients with chronic kidney disease.
- **H3:** There will be a significant correlation between post-test level of knowledge and attitude scores regarding lifestyle modifications among patients with chronic kidney disease.
- **H4:** There will be a significant association between pretest level of knowledge and attitude scores regarding lifestyle modifications among patients with chronic kidney disease with their selected demographic variables.

The major finding of the Study was as Follows

- The pretest mean value of knowledge was 15.77
- The post-test mean value of knowledge was-22.82
- The pre-test mean value of attitude was 41.25
- The post-test mean value of attitude was 53.8
- The obtained ‘t’ value for comparison of knowledge score at p<0,05 level was 16.87
- The obtained 't’ value for comparison of attitude score at p<0.05 level was 18.87.

- The correlation between knowledge and attitude in pre-test regarding lifestyle modification among patients with chronic kidney disease was + 0.67
- The correlation between knowledge and attitude in post-test regarding lifestyle modifications among patients with chronic kidney disease was + 0.73
- The demographic variable education is having a significant association with pre-test knowledge score of lifestyle modifications among patients with chronic kidney disease and other variables like age, sex, religion, occupation, income, marital status, education, family type, dietary pattern, body built, duration of chronic kidney disease,
- The demographic variables namely age, sex, religion, education, occupation, income, marital status, education, family type, dietary pattern, body built, duration of chronic kidney disease, personal habits, associated illness showed no significant association with pre-test attitude score of lifestyle modifications among patients with chronic kidney disease.

6.2 CONCLUSION

- This educative measure shows that there is a significant improvement in knowledge and attitude regarding lifestyle modification among chronic kidney disease patients. The post-test score of knowledge and attitude were highly significant when compared with pretest score. Hence the alternative hypothesis is accepted.
- Karl Pearson coefficient of correlation was used to correlate knowledge and attitude score of study subjects. There was a positive correlation between knowledge and attitude score in pre-test and post-test. Results Show that the

improvement in knowledge which develops the favorable attitude towards the lifestyle modifications of chronic kidney disease patient.

- The $\chi 2$ test was used to find out the association between selected demographic variables with knowledge and attitude regarding lifestyle modifications of patients with chronic kidney disease. The result revealed that the educational status has the significant association with pre-test knowledge score.Other variables were not associated with pre-test knowledge score. The demographic variables were not associated with attitude pretest score.

6.3 NURSING IMPLICATIONS

The findings of the study have implications for various areas of nursing practice, nursing education, nursing administration and nursing research.

6.3.1 Nursing Education

- The nursing curriculum is a mean through which future nurses are prepared. The emphasis needs to he planned on preventive and promotive health practice.
- A video-assisted teaching programme regarding lifestyle modifications must be emphasized in the nursing curriculum.
- The nursing curriculum should include the training for students related to the creation and projection of videos.
- Student nurses have to update their knowledge regarding the incorporation of video in health education.

6.3.1 Nursing Practice

- The study can emphasize on improving the knowledge and attitude regarding lifestyle modifications by educative measures.
- Education about lifestyle modifications to reduce the progression of chronic kidney disease and increase the quality of life.
- Nurses can also impart knowledge regarding lifestyle modifications to maintain and increase the quality of life.
- Nurses conduct teaching programs on chronic kidney disease and its Management.

6.3.3 Nursing Administration

Nurse administrators should take interest in formulating guidelines and various modalities of treatment of chronic kidney disease. Through in-service education programmes, nurses can be motivated to learn and practice the lifestyle modifications for chronic kidney disease.

- The nursing administrators should be able to motivate and initiate the health personnel in organizing and participating in various educational programmes and improve their skill and knowledge.

6.3.4 Nursing Research

- Extensive research must be conducted in this area to identify the effectiveness of video assisted teaching programme which would be beneficial to the chronic kidney disease.

- This study can be the baseline for the further studies to build upon. Research should be done to find out various innovative methods of effective teaching to improve the knowledge and attitude on lifestyle modifications.
- Researches can be done with the help of the teaching programme in various other issues of health.
- It can be used for evidence-based practice as a new trend in treatment modality for chronic kidney disease.

6.4 LIMITATIONS

- The limited sample size places a limitation on the generalization of the study findings.
- The researcher could not use randomized sampling technique in this study.
- Knowledge and attitude of chronic kidney disease patient were assessed only through the verbal responses through structured interview schedule, which may be selective to various factors like inhibition of self-expression.
- This study assessed only the chronic kidney disease patient knowledge and attitude, actual practice was not observed.

6.5 RECOMMENDATIONS

- A similar study can be used as a comparative study between the effectiveness of medical management and complementary therapies.
- A similar study can be done to assess the stress level of chronic kidney disease.
- A Similar kind of study can be conducted for a large group.

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Approved by the Government of Tamilnadu Vide G.O. MS. No. 226/22-09-2006 & INC

INC Code - B.Sc. (N) 2903067, M.Sc. (N) 2904079

Affiliated to TN Dr. MGR Medical University

PERMISSION LETTER FOR CONDUCTING THE STUDY

Ref :

Date .....

From

Sherly .K.
M.Sc (N) II Year
Texcity College of Nursing
Coimbatore- 641 023.

To

The administrator
Balaji Hospital
Sundarapuram,
Coimbatore- 641 024.

Through : Principal, Texcity College of Nursing

SUB : Requisition letter for conducting the research study.

Respected Madam,

I am, Ms. Sherly .K. M.Sc (N) II Year in Texcity College of Nursing. Our institution is affiliated to The Tamilnadu Dr. MGR Medical University, Chennai, as part of my curriculum requirement of M.Sc (N) programme, I have to conduct a research study an **"A Study to evaluate the effectiveness of video assisted teaching programme on knowledge and attitude regarding lifestyle modifications among patients with chronic kidney disease"** in Balaji Hospital, Coimbatore.

So, I kindly request you to grant me permission for conducting the study in your hospital, in the month of Feb.-Mar.2018. I assure you that I will not disturb the daily routine of the hospital and the information collected from study participants will not be disclosed.

Thanking you,

Yours faithfully,

SHERLY .K.

Forwarded
Shanmini D

PRINCIPAL
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Certificate in Diabetology, Medical Officer D.G. Shipping
Reg. No. 37755

SRI BALAJI HOSPITALS

314, Pollachi Main Road, Sundarapuram, Coimbatore - 641 024.

SRI BALAJI HOSPITALS

Ref :

Date : 5.12.2017

The Principal
Texcity College of Nursing
Coimbatore – 23.

Respected Madam,

This is to certify that Ms. Sherly .K. M.Sc (N) II Year student of your institute has conducted the research project in our institution.

The topic of research was

"A Study to evaluate the effectiveness of video assisted teaching programme on knowledge and attitude regarding lifestyle modifications among patients with chronic kidney disease in selected hospital, Coimbatore".

Thanking you,

Dr. D. DHANDAPANI, M.B.B.S.,
Reg. No. 37755,
314, Pollachi Main Road,
Sundarapuram, Coimbatore - 24.

APPENDIX - II

Ref:

LETTER REQUESTING EXPERT OPINION TO ESTABLISH CONTENT VALIDITY

TO,

(Through- Principal Texcity College of Nursing)

Respected sir/madam,

SUB: Nsg-Education-MSc(N) II yr-content validity req-reg,

I wish to state that I am MSc (N) II year student of Texcity College of Nursing has to carry out a research project. This is to be submitted to the TN DR. MGR Medical University, Chennai in partial fulfillment for the requirement for the award of Master of Science in Nursing.

The topic of research project is:

"A Study to evaluate the effectiveness of structured teaching programme on knowledge and attitude regarding lifestyle modification among patients with chronic kidney disease at selected hospital Coimbatore".

I have enclosed,

1. Statement of the problem, objectives and hypothesis
2. Demographic data
3. Research tool
4. Teaching module

I request you to go through the items and give your valuable suggestions, modifications. additions and deletions, if any, in the remark column.

Thanking you,

Place: Coimbatore
Date:

Yours faithfully,

Ms.K.Sherly

APPENDIX-III

LIST OF EXPERTS GIVEN OPENION FOR CONTENT VALIDITY

1. Mrs.Ummul Hapiba, M.Sc(N).,
   Professor
   Principal
   Rass academy College of Nursing,
   Madurai.

2. Mrs. Manimagalai, M.Sc (N).,
   Professor
   V.V.M College of Nursing,
   Virudunagar.

3. Mrs.kiruthika devi , M.Sc (N).,
   Assistant Professor,
   Texcity College of Nursing
   Coimbatore.

4. Mrs.Sakthibharathi, M.Sc (N).,
   Assitant Professor
   Sacred heard College of Nursing,
   Madurai.

AAPENDIX IV

EVALUATION CRITERIA CHECK LIST FOR CONTENT VALIDITY

INTRODUCTION:

Expert is requested to go through the following evaluation criteria checklist prepared for the intervention there are three columns given for the response and facilitate suggestions in the remarks column given.

S. NO	CONTENT	CRITERIA			REMARK
		MET	PARTIALLY MET	DOES NOT MET	
I.	**SELECTION OF CONTENT :**				
a.	Content reflects the objectives				
b.	Content has up to date knowledge				
c.	Content is comprehensive for the learning needs				
d.	Content provide correct and accurate information				
e.	Content coverage				
II.	**ORGANIZATION OF CONTENT :**				
a.	Logical sequence				

b.	Continuity				
c.	Integration				
III.	**LANGUAGE :**				
a.	Local language is used in simple and in understandable dialogues				
b.	Technical terms are explained at the level of learners ability				
IV.	**FEASIBILITY \ PRACTICABILITY**				
a.	Is suitable to subjects				
b.	Permit self learning				
c.	Acceptable and useful to the clients				
d.	Suitable for setting				
V.	**ANY OTHER SUGGESTIONS**				

EXPERT'S SIGNATURE WITH DATE AND SEAL

APPENDIX - V

EVALUATION CRITERIA CHECK LIST FOR CONTENT VALIDITY

TOOL: 1 DEMOGRAPHIC VARIABLIES AND BACK GROUND INFORMATION

INSTRUCTION:

Expert is requested to go through the following evaluation criteria and check list prepared for the demographic variable there are three columns given for the response and facilitate suggestions in the remarks column given.

Demographic variables	Relevant	Irrelevant	Remarks
1-12			

Any other suggestions:

Expert's Signature with Date and Seal

APPENDIX VI

LETTER SEEKING CONSENT OF SUBJECTS FOR PARTICIPATION IN THIS STUDY

SAMPLE NO:1

CONSENT LETTER

I,Mrs. ---------- willing to participate in the study to "The effectiveness of video assisted teaching programme on knowledge and attitude regarding lifestyle modifications among patients with chronic kidney disease in St. Mary's Hospital, Coimbatore.".as part of M.Sc., Nursing requirements by Ms.Sherly.K. The study was well explained by the researcher and I am interested to take part in this study.

SIGNATURE

APPENDIX VII

CERTIFICATE FOR ENGLISH EDITING

TO WHOM SO EVER IT MAY CONCERN

This is to certify that the tool developed by Ms.Sherly., M.Sc., Nursing student of Texcity college of nursing for dissertation **"**The effectiveness of video assisted teaching programme on knowledge and attitude regarding lifestyle modifications among patients with chronic kidney disease in Balaji Hospital, Coimbatore". and the study is edited for English language appropriateness by Mrs.Muthumalini Alice,M.A (English).,B.Ed.Texcity College of Nursing Coimbatore.

SIGNATURE

APPENDIX-VIII

SECTION –A

Demographic Variables

Instruction

Read the following questions carefully and give (/) your answers in a given options

Sample No. : ----------

1) Age

a) 21-30 years

b) 31-40 years

c) 41-50 years

d) >51 years

2) Sex

a) Male

b) Female

3) Religion

a) Hindu

b) Muslim

c) Christian

4) Education

a) Illiterate

b) Primary

c) Secondary

d) Graduate/diploma

5) Occupation

a) Unemployed

b) Self employed

c) Government employee

d) Private employee

e) Coolie worker

6) Income

a) Rs. < {5000

b) Rs. 5001 - 15000

c) Rs. 15001 - 25000

d) Rs. >25000 -25001

7) Marital status

a) Married

b) Unmarried

c) Others

8) Types of family

a) Joint family

b) Nuclear

9) Dietary pattern

a) Vegetarian

b) Non vegetarian

10) Body built

a) Thin

b) Moderate

c) Obese

d) Very obese

11) Duration ofdisease

a) 1-5 months

b) 6-10 months

c) 1 1-15 months

d) 16-24 months

12) Personal habits

a) Alcohol

b) Smoking

c) Alcohol and smoking

d) Tobacco chewing

e) None of the above

13) Associated illness

a) Diabetes

b) Hypertension

c) Cardio vascular disease

d) Obesity

e) None of the above

APPENDIX IX

SECTION – B

Structured questionnaire to Assess the Level of Knowledge Regarding Life Style Modifications among patients with Chronic Kidney Disease

Instruction

Read the following questions carefully and give () in a given box for correct answers.

General Information Regarding Chronic Kidney Disease

1) Chronic kidney disease which affects

a) Liver

b) Heart

c) Brain

d) Kidney

2) Chronic kidney disease is

a) The inability of the kidney to excrete waste product from the blood

b) The inability of the kidney to excrete water from the blood

c) The inability of the kidney to excrete sodium from the blood

d) The inability of the kidney to excrete potassium from the blood

3) Chronic kidney disease can be

a) Irreversible

b) Reversible

c) Curable

d) Treatable

4) The prevalence of chronic kidney disease greater among

a) Men

b) Women

c) Men and women

d) Children

Risk Factors for Chronic Kidney Disease

5) Causes leading to chronic kidney disease

a) Diabetic

b) Inherited condition

c) High blood pressure

d) All of the above

6) Associated risk factors for chronic kidney disease include

a) Cardiovascular disease

b) Obesity

c) Diabetic

d) All of the above

7) Drugs involved in chronic kidney disease is

a) NSAID

b) Antihypertensive

c) Calcium supplement

d) Lipid agent

Signs and Symptoms of Chronic Kidney Disease

8) Early symptoms of chronic kidney disease include

a) Nausea. vomiting

b) Back pain

c) Blood in the urine

d) Edema

9) Chronic kidney disease patients may have

a) Breathing difficulty

b) Chest pain

c) Joint pain

d) A cough

Diagnostic Evaluation

10) The early step in diagnosing chronic kidney disease is

a) Blood test

b) Urine test

c) USG abdomen

d) CT scan

11) The most common diagnostic test for chronic kidney disease

a) Blood test include urea, creatinine, potassium

b) MRI

c) Renal biopsy

d) CT scan

Medical and Surgical Management

12) Edema is treated by

a) Analgesics

b) Diuretics

c) Anti-inflammatory drug

d) Antibiotics

13) Drug therapy for chronic kidney disease includes

a) Antihypertensive

b) Anti lipids

c) Diuretics

d) All of the above

14) Action of diuretics is to

a) Reduce the edema

b) Reduce the heart rate

c) Reduce the pain

d) None of the above

15) Dialysis is

a) Remove the excessive level of urea, creatinine from the body

b) Remove the toxin from the body

c) Remove the excessive level of plasma from the body

d) Remove the water from the body

16) Suggested treatment for end-stage chronic kidney disease

a) Medication

b) Dialysis

c) Kidney transplant

d) None of the above

Life Style Modifications for Patients with Chronic Kidney Disease Diet

17) The Protein intake for chronic kidney disease patient is

a) Restricted or avoided

b) Must be taken in high amount

c) Must be taken moderately

d) Must be taken daily

18)The Potassium rich fruit

a) Orange

b) Mango

c) Grapes

d) Apple

19) Salt intake by the chronic kidney disease patient per day is.

a) 9-12g/day

b) 12-14g/day

c) 5-12g/day

d) 2-3g/day

20) The low phosphorous food is

a) Cheese

b) Milk

c) Beans

d) Egg yolk

Fluid

21)The fluid intake by the patient with chronic kidney disease is

a) Minimum 500 ml/day

b) 500 -1000 ml /day

c) 1000-2000 ml /day

d) 2000ml/day

22) Taking fluid more than 1000 ml/day by the chronic kidney disease patient may lead to

a) Edema

b) Breathing difficulty

c) Edema and breathing difficulty

d) None of the above

Exercise

23) Chronic kidney disease patient need to do exercise per day for

a) 1 to 2 hours

b) 5 minutes

c) 5-10 minute

d) 20-30 minute

24) Simple and best method of exercise is

a) Swimming

b) Cycling

c) Skipping

d) Walking

Relaxation Techniques

25) Stress reduction techniques for chronic kidney disease patient is

a) Music therapy

b) Yoga

c) Deep breathing exercise

d) All of the above

26) During anxiety the client should

a) Take anti-anxiety drug

b) Do deep breathing exercise

c) Do the exercise

d) Check blood pressure

27) Relaxation techniques helps to reduce the

a) Blood pressure

b) Joint pain

c) Blood cholesterol

d) Sleep

28) Infection at fistula site can be avoided by

a) Cleaning the wound and apply dressing

b) Taking prophylactic antibiotics without physician order

c) Consult the doctor

d) None of the above

29) Complication of chronic kidney disease is

a) Anemia

b) Fracture

c) Skin Rashes

d) All of the above

30) Skin dryness can be prevented by

a) Apply skin lotion

b) Taking calcium supplement

c) Taking healthy food.

d) Taking antibiotics

APPENDIX- X

SECTION – C

Attitude Questionnaire Regarding Life Style Modification Among Patients with Chronic Kidney Disease

Instruction

Kindly go through each item of the questionnaire carefully and indicate your response by placing (/) mark in the box

S.No	Items	Response					Score
		SA	A	UD	D	SD	
1	Chronic kidney disease is progressive and irreversible						
2	A common cause of chronic kidney disease are hypertension, diabetes mellitus and						
3	Edema, puffiness of face are the signs ofdeterioration in the health status						
4*	Blood urea, creatinine level will be normal in case of kidney disease patient						
5	Dialysis is one of the treatments for chronic kidney disease						
6*	The total amount of fluid per day will not be calculated based on the previous day's output						
7	Monitoring daily intake output of chronic kidney disease patient is important						
8	Physical activities like walking, cycling are best activities rather than watching TV						
9	Yoga and meditation are relaxation techniques.						
10	Monitoring ideal body weight and monitoring blood is important for chronic kidney disease patient.						

11	One of the important problems for chronic kidney disease is anemia						
12	Taking iron-rich diet like green leafy vegetables helps to prevent the anemia						
13	Smoking will increase the risk of damaging the renal artery						
14*	Excessive consumption of alcohol can maintain the normal blood pressure.						

***Negative statement**

Score

Strongly agree	**5**
Agree	**4**
Undecided	**3**
Disagree	**2**
Strong disagree	**1**

SECTION -B

Scoring key

Question No	Answer	Score
1	d	1
2	a	1
3	a	1
4	b	1
5	d	1
6	d	1
7	a	1
8	a	1
9	a	1
10	a	1
11	a	1
12	b	1
13	d	1
14	a	1
15	a	1
16	c	1
17	a	1
18	a	1
19	d	1
20	c	1
21	a	1
22	c	1
23	d	1
24	d	1
25	d	1
26	b	1
27	a	1
28	a	1
29	d	1
30	a	1

SECTION –C

Scoring Key

The score of Positive statement

Strongly agree	5
Agree	4
Undecided	3
Disagree	2
Strong disagree	1

The score of Negative statement

Strongly agree	1
Agree	2
Undecided	3
Disagree	4
Strong disagree	5

APPENDIX - XI

HEALTH EDUCATION

ON

LIFE STYLE MODIFICATIONS AMONG CHRONIC KIDNEY DISEASE PATIENTS

HEALTH EDUCATION

ON

LIFE STYLE MODIFICATIONS AMONG CHRONIC KIDNEY DISEASE PATIENTS

Topics	:	Life Style Modifications Among Chronic Kidney Disease Patients
Group	:	Patients with Chronic Kidney Disease
Place of Teaching	:	N.G Hospital, Coimbatore.
Teaching Aids	:	PPT,

General Objective

After completion of video assisted teaching the patient will have increased knowledge in the life style modifications of chronic kidney disease and to prevent complication.

Specific Objective

- At the end of the video assisted Teaching programme the patient will be able to
- describe the anatomy and physiology of kidney
- meaning of kidney disease and types
- define chronic kidney disease
- explain the stages of chronic kidney disease
- enumerate the etiology of chronic kidney disease
- enlist the clinical manifestations of chronic kidney disease
- explain about the management of chronic kidney disease
- describe the medical management of chronic kidney disease
- explain about life style modification of chronic kidney disease.

Specific Objective	Content	Teaching Activity
	Introduction Kidney disease result when the kidney cannot remove the body's metabolic wastes or perform their regulatory function. The substances normally eliminated in the urine accumulated in the body fluid as a result of improved renal excretion leading to disruption in endocrine and metabolic functions as well as fluid well electrolyte and acid base disturbance **Anatomy and Physiology of Kidney** Kidney lie in the posterior wall of the abdominal cavity, each on the either side of the vertebral 4 column behind the peritoneum and below the diaphragm, they extend from the level of the 12th vertebrae receiving some protection from the lower ribcage. The right kidney is usually slightly lower than the left, probably because of the considerable space occupied by the liver. Kidneys are bean shaped organs about 1cms long, 6cm wide, 3cm thick and weight 150gm. There are three tissues which can be distinguished when longitudinal section of the kidney is vied with naked eyes. **The Nephron** The nephron consist of a tube at one end the other end opening in to a collecting tubule. The	

	closed or blind end is indented to form a cup shaped glomerular capsule which almost completely encloses a network of arterial capillaries. The glomerular capsule remainder of the nephron is about 3cm long and is described in three parts ➢ The proximal convoluted tubule ➢ The medullary loop (loop of henley) ➢ The distal convoluted tubule **Functions** The kidney produce urine through three phases ➢ Simple filtration ➢ Selective re-absorption ➢ Secretion **Meaning of Kidney Failure and Types Meaning** Kidney failure is failure of the kidney to maintain internal homeostasis **Lewis, 2010** Types of Kidney Disease ➢ Acute kidney disease	

	➢ Chronic kidney disease **Definition of Chronic Kidney Disease** Chronic kidney disease involves progressive, irreversible loss of kidney function. It defined as either the presence of kidney damage or OF R <60 nil/min for 3 month or longer **Lewis, 2010** **Etiology** ➢ High blood pressure ➢ High blood sugar (diabetes). ➢ Other things that can lead to chronic kidney disease include: kidney diseases and infections, such as polycystic kidney disease, pycloncphritis, and glomerulonephritis, ➢ Long-term use of medicines that can damage the kidneys. Examples-NASIDS, such as lbubrufen, celecoxib. ➢ Smoking. alcohol ➢ Contaminated drinking water **Clinical Manifestation** ➢ Appetite loss	

	➢ Fatigue ➢ Headaches ➢ Itching (pruritus) and dry skin ➢ Nausea and vomiting ➢ Weight loss ➢ Abnormally dark or light skin ➢ Bone pain ➢ Brain and nervous system symptoms: drowsiness and confusion, problems ➢ concentrating or thinking, numbness in the hands, feet, or other areas or cramps ➢ Breath odor, easy bruising, bleeding, or blood in the stool excessive thirst, frequent hiccups ➢ Low level of sexual interest and impotence ➢ Amenorrhea ➢ Shortness of breath ➢ Sleep problems, such as insomnia, restless leg syndrome, and obstructive sleep apnea ➢ Swelling of the feet and hands (edema) **Diagnostic Evaluation**	

	➢ History collection Family history, medication history ➢ Physical examination Identification of hypertension, edema Renal ultrasound estimate the duration of chronic kidney disease, urine flow, any blockage, findout the causes of kidney disease ➢ CT scan to identify the unusual blockage, any mass and cysts ➢ Renal biopsy to fmdout the cases of chronic kidney disease ➢ BUN, serum creatinine and creatinine clearance level to estimate the glomerular filtration rate ➢ Serum electrolyte to identify the creatinine, urea, potassium, sodium level ➢ Urinalysis and urine culture to measure the protein in the urine ➢ Hematocrit and hemoglobin level it helps to identify the anemia **Management** **Medical Management** ➢ **High Blood Pressure Medications :** People with chronic kidney disease may experience worsening high blood pressure. Medications to lower the blood pressure commonly angiotensin~converting enzyme (ACE) inhibitors or angiogenesis II receptor blockers and to preserve kidney function.	

	Medications to Lower Cholesterol Levels : Tablet Statins, to lower the cholesterol. People with chronic kidney disease often experience high levels of bad cholesterol, which can increase the risk of heart disease. ➢ Medications to Relieve Anemia :Erythropoietin supplements can induce production of more red blood cells, which may relieve fatigue and weakness associated with anemia. ➢ Medications to Relieve Swelling : People with chronic kidney disease will have edema in the arms and legs, as well as high blood pressure. A diuretic helps maintain the balance of fluids in the body. ➢ Medications to Protect Your Bones : Calcium and vitamin D supplements to prevent weak bones and lower the risk of fracture. Take medication to lower the amount of phosphate in the blood, which increases the amount of calcium for the bones. **Dialysis** ➢ Dialysis artificially removes waste products and extra fluid from the blood .Types of dialysis includes ➢ Hemodialysis ➢ Peritoneal dialysis	

Surgical Management

- Kidney transplant
- Transplant is a one of the option for end stage kidney disease. Kidney transplant involves surgically placing a healthy kidney from a donor into the body. Transplanted kidneys can come from deceased donors or from living donors

Life Style Modification of Chronic Kidney Disease

Diet for Chronic Kidney Disease

Low Sodium diet

- Low-sodium diet aim to keep the daily sodium intake less than 1,500 milligrams.
- Controlling blood pressure is important in managing kidney disease, So sodium restriction is recommended for blood pressure and the sodium level 2-3 mg per day.

Avoid High Sodium Rich Food

Avoid High-sodium foods	Take lower-sodium foods
➢ Salt, Pickles ➢ Dry fish ➢ Appalam	➢ Salt-free herb seasonings ➢ Frozen vegetables ➢ Plain rice

➢ Chips ➢ Bakery items ➢ Canned vegetable ➢ Packaged noodles with sauce canned soup ➢ Tomato sauce	➢ Plain noodles ➢ Unsalted popcorn

Low Potassium Diet

- Chronic kidney disease patient to avoid Potassium rich diet

Avoid high-potassium foods	**Take lower-potassium foods**
➢ Oranges and Orange juice ➢ Melons, Apricots ➢ Banana, kiwi, Potatoes, ➢ Tomatoes, Sweet Potatoes ➢ Cooked spinach, Yougurt ➢ White mushroom ➢ White beans ➢ Beans (baked, kidney)	➢ Apples and apple juice ➢ Cranberry juice ➢ Canned fruit, Broccoli ➢ Strawberries, Blueberries, Raspberries, Plums ➢ Pineapple, Cabbage ➢ Cauliflower

Low protein diet

(Avoid Protein Rich Foods -Milk and milk products, nuts, egg)

If the patient with chronic kidney disease take restricted amount of protein. Daily intake of protein diet for chronic kidney disease patient 0.8 g to 1.0 g of protein per kilogram of the body.

Avoid high-protein foods	Take lower protein
➢ Ground beef, halibut ➢ Salmon ➢ Chicken breast ➢ Chili con came	➢ Egg white ➢ Milk products ➢ Red meat beef stew ➢ Vegetable and grains ➢ Chicken drumstick

Low phosphorus diet

- Chronic kidney disease patients, generally take 800 to 1,000 milligrams (mg) of phosphorus a day is the limit.

Avoid high-phosphorus foods	Take lower-phosphorus foods
➢ Dairy foods (milk, cheese, yogurt)	➢ Liquid non-dairy creamer

	➢ Beans (baked, kidney, lima, pinto) ➢ Nuts and peanut butter ➢ Processed meats (hot dogs, canned meat) ➢ Cola ➢ Canned iced teas and lemonade ➢ Bran cereals ➢ Egg yolks	➢ Sherbet ➢ Pasta rice ➢ Rice and corn cereals ➢ Popcorn ➢ Green beans ➢ Lemon-lime soda ➢ Root beer ➢ Powdered iced, tea	

High Calcium Diet

Calcium supplement helps to prevent bone disease and Vitamin D to control the balance of calcium and phosphorous in the body

Fluid

- Drink a restricted amount of oral fluid .Too much fluid will leads to shortness of breath.
- Chronic kidney disease patient fluid need per day is equal to previous amount of urine output plus 500ml. It includes tea, coffee, milk, rasam, butter milk ,do not eat much foods that

contain a lot of water, such as soup, ice cream , melon, tomatoes

Avoid bad fats	**Take good fats**
Saturated fats ➢ Red Meat ➢ Poultry ➢ Whole Milk ➢ Butter	**Monounsaturated Fats** ➢ Corn oil ➢ Safflower ➢ oil Olive oil ➢ Peanut oil ➢ Canola oil

Control blood pressure

Advice the Patient to Maintain the Weight According to their BMI

- Advice the patient to eat fresh fruits and vegetables, grains, and low-fat dairy foods.
- Advice the patient to limit the daily salt, sodium intake
- Advice the patient to keep the blood pressure below 130/80 mm of Hg
- Advice the patient to take anti hypertensive drugs like angiotensin-converting enzyme (ACE) inhibitors, angiotensin receptor blockers (ARBs), beta blockers, and calcium channel blockers

	as per doctors order. **Control blood glucose level** ➢ Advice the patient to check blood glucose level regularly. ➢ Advice the patient to check the HbAlC test at least twice a year. ➢ Advice the patient not to skip regular meals or snacks. ➢ Advice the patient to take medicines daily as per doctor order. ➢ Advice the patient to do the physical activity every day. **Prevention cardiovascular disease** ➢ Diseases of the heart and blood vessels, also called cardiovascular disease can damage the kidneys ➢ **Eat Right** : Eat foods low in fat and cholesterol, Eat foods that are high in fiber. Limit alcohol ➢ **Live Healthy** : Exercise, keep a healthy weight, don't smoke or use tobacco. ➢ **Manage high Blood Pressure :** High blood pressure can make the cardiovascular disease worse and also causes kidney disease. A normal blood pressure is less than 120/80 mm Hg.	

	Prevention of Anemia ➢ Anemia is a common complication of chronic kidney disease. ➢ Advice the patient to take iron supplementation and erythropoiesis stimulating drugs. **Prevent Renal Osteodystrophy** Chronic kidney disease patient affected with bone disease with pain in the back and joint due to alteration in calcium and phosphate metabolism. ➢ Advice the patient to take calcium rich diet ➢ Advice the patient to avoid phosphate rich diet **Injury Prevention** ➢ Promote a safe environment ➢ Advice to careful while handling sharp instruments. ➢ Advice to avoid chances for fall due to increase susceptibility to fracture of bone. ➢ Advice the patient to take calcium supplement or calcium diet like milk to maintain the stability of bone **Smoking and chroni kidney disease** Smoking allow other toxins into the body and harms every organ of the body. Some of the possible	

	ways smoking is though to kidney are by, : ➢ Increasing blood pressure and heart rate ➢ Reducing blood flow in the kidney ➢ Narrowing the blood vessels in the kidneys ➢ Forming arteriosclerosis (thickening and hardening) of the renal (kidney) arteries. **Avoid – Alcohol** Drinking excessive amounts of alcohol will cause the blood pressure to rise, as well as raising cholesterol levels in the blood. **Well Balance Diet and Maintain Body Weight** ➢ Advice the patient to take balanced diet ➢ Lose weight if you are overweight. Being overweight makes the kidneys work harder. Losing weight helps the kidneys last longer. **Avoid Self Medication** ➢ Advice the patient to avoid self medication it will affect the kidney function. ➢ Example ; Pain Medication (NSAIDS) **Fistula Care** ➢ Advice the patient to inspect the site of dialysis	

	➢ Advice the patient to inform if there is any bulging or hematoma in the site. ➢ Advice the patient to prevent the soling of bandage. ➢ Advice the patient to clean the site and the catheter with antiseptic solution. ➢ Assess for any signs of infection in the site such as tenderness, color changes or any odor from the site of dialysis. ➢ Explain to the patient to inform the physician if he /she are having any pain or discomfort in the site of infusion during the procedure. **Exercise** **Importance of exercise** ➢ Strengthens your heart and reduces the risk of heart attack. ➢ Increases your hematocrlt and hemoglobin levels which necessary for oxygenation all the organs in the body. Improves your glucose control. ➢ Decreases your blood pressure ➢ Decreases levels of cholesterol and triglycerides. ➢ Reduces stress ➢ Advice the patient to take deep breathing exercise if there drug anxiety	

- The patient can go for walk in the morning and evening
- Take rest in between if she/he feels so tired.
- Advise for flexion and extension of the extremities to reduce complication in joint such as stiffness and pain

Choose an activity that is both convenient and enjoyable, whether it is floor exercise, walking, swimming or bicycling. Exercise should be a minimum of three days per week. During the first week, exercise five minutes each session, then adds one or two minutes per session each week until you gradually work up to one half hour. For weight control and increased benefits. try longer walks (at least 20-30minutes)

Do not exercise under any of these conditions	**Stop exercising if you feel any of the following**
➢ If you have a fever ➢ If the weather is very hot and humid. ➢ If you have any orthopedic conditions	➢ Excessively fatigued ➢ Shortness of breath ➢ Chest pain ➢ Irregular or rapid heartbeats

	Daily Activity ➢ The person should be assisted if he is not able to cany out the normal activity ➢ Patient should take adequate rest in between the activity to reduce chances of fatigue **Relaxation Technique** ➢ To take slow deep breathing exercise > Advice the patient to do yoga, meditation > Advice about the importance of ventilation of feelings about his condition > Advice for practicing divertional activities like watching T.V, reading news paper , chatting with friends and family members and relatives **Avoid Heavy Work** ➢ Advice the patient to avoid heavy activity ➢ Advice the patient to avoid heavy lifting **Prevention of Complication** ➢ Advice to monitor blood pressure regularly ‘r Monitor the blood sugar level ➢ Advice the patient to follow strictly his drug regimen ➢ Explain about the action, dosage side effects of the prescribed drug	

	➢ Explain about the renal failure and its incidence, prognosis and treatment. ➢ Advice the patient about prevention of infection to site of dialysis ➢ Advise that he /she should restrict the intake of protein according to the creatinine clearance in the blood. ➢ Advise about the restricted of sodium, example : salt in the diet ➢ Advise the patient to restrict the fluid intake according to the edema in the body ➢ Advise the patient to report to the physician if he/she feels immense fatigue, headache, and syncope after the procedure. ➢ Advise the patient should be aware about the intake output monitoring **Conclusion** Chronic kidney disease patients have to know about their condition and knowledge about life style modifications is important to prevent the complications.	